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ABSTRACT

The purpose of the study was to define factors associated with high (16% or more) and low (15% or less) rates of attrition of ethnic minority students in vocational education programs. Six functional areas of school operations were studied: teacher characteristics, teaching techniques, total school environment, supportive services, organization, and parent and community participation. Course profile sheets mailed to school districts identified programs having substantial enrollments of black, American Indian, Asian, and Spanish surname students and provided pertinent baseline data. A sample of programs in the 31 cooperating districts was evaluated by a questionnaire survey of teachers, currently enrolled students, and students who had dropped out. In [illegible]0 of the districts, followup site visits were made. Findings of the study were based on analysis of responses from 62 teachers and 205 students. Developed from results of the study and subjective impressions from the site visits, the model delineates 20 elements in the school environment which should be considered in improving programs for minority students. Recommendations include the need for a meaningful structure within an open, friendly, total atmosphere. Appended are a bibliography, project correspondence, course profile form, questionnaires, and site visitation checklist. (Author/RG)

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FINAL REPORT

Project Number V0241VZ
Contract Number OEC-0-74-1740

A STUDY TO DESIGN A MODEL OF EFFECTIVE APPROACHES, METHODS AND TECHNIQUES TO MEET THE NEEDS OF ETHNIC MINORITY STUDENTS IN VOCATIONAL EDUCATION

Research Project in Vocational Education
Conducted Under
Part C of Public Law 90-576

The project report herein was performed pursuant to a grant from the Office of Education, U.S. Department of Health, Education, and Welfare. Contractors or grantees undertaking such projects with Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

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September, 1975

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TABLE OF CONTENTS

Page

Acknowledgments i
Survey Staff ii
Foreword iii

I. EXECUTIVE SUMMARY 1
II. THE PROBLEM 15
III. GOALS AND OBJECTIVES OF THE PROJECT 32
IV. PROJECT DESIGN AND PROCEDURES 34
V. RESULTS AND FINDINGS OF THE STUDY 58
VI. SITE VISITATIONS 108
VII. MODEL PROGRAMS FOR MINORITY STUDENTS 114
VIII. CONCLUSIONS AND RECOMMENDATIONS 126

Bibliography 133
Appendices 135

LIST OF TABLES

Page

TABLE 1. Frequency Count -- Vocational Classes by Percent of Drop-Out, Course Title and Predominant Ethnic Group 50

TABLE 2. Characteristics of Student Respondents 55

TABLE 3. Ratings of Participating Cities by Strength of Organized Labor 56

TABLE 4. Teacher Characteristics -- (Age, Sex and Ethnic Affiliation) 60

TABLE 5. Teacher Characteristics -- (Outside Activities) 61

TABLE 6. Teacher and Students by Ethnic Affiliation . . . 63

TABLE 7. Location of Classes 68

TABLE 8. Frequency of Use of Teaching Aids 72

TABLE 9. Frequency of Use of Differential Individualized Teaching Approaches 76

TABLE 10. Teacher Perceptions of the Equipment, Supplies and Space Provided 79

TABLE 11. Student Perceptions of the Equipment, Supplies and Space Provided 80

TABLE 12. Smoking on Campus 85

TABLE 13. Freedom to Speak Out in School Paper 86

TABLE 14. Freedom to Move About Campus without Permission 86

TABLE 15. Freedom to Wear Hair and Clothes the Way You Want 87

LIST OF TABLES (Cont)

Page

TABLE 16. Students Have Some Say in Resolving Grievances 88

TABLE 17. Responses to the Item: School Was a Very Friendly Place 89

TABLE 18. Teacher Perceptions of Student Relations with Campus Groups 90

TABLE 19. Remedial Assistance Available to Improve Basic Skills 92

TABLE 20. Services Schools Regularly Provide to Students 94

TABLE 21. Resources Available Nearby for Student to Review or Brush-Up Material 95

TABLE 22. Extra Assistance Provided for Bilingual Students 95

TABLE 23. Bilingual Aides and Tutors 96

TABLE 24. Student Valuation of Supportive Services as a Help in Keeping Them Enrolled 97

TABLE 25. Parent Participation on School District Committees 103

TABLE 26. Student Participation on School District Committees 104

TABLE 27. Labor/Management Participation on School District Committees 104

TABLE 28. Employment of Parents at Schools 105

TABLE 29. Student Reaction to Minority Persons Employed on Campus 106

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Perhaps as many as a thousand people - teachers, counselors, administrators and other staff in literally hundreds of school districts, high schools, vocational schools, community colleges, regional occupational programs and technical institutes, as well as in State and Federal agencies - gave their time and cooperation to us as we attempted this ambitious plan of research. Their number, as well as our pledge to them to keep confidential the specific names of participating cities, schools or persons, prevents us from thanking them individually and publicly in this document. Special gratitude must go, however, to the personnel of the Bureau of Adult and Occupational Education, Research Division, USOE, for their assistance, especially to Dr. Glenn Boerrigter, Chief of the Division, Mr. Mario George, our Project Officer, and to Ms. Velma Brawner, Project Analyst.

This final report prepared for USOE does include mention of specific cities and schools. It is intended for use of the Agency only. A separate summary, which synthesizes all findings in aggregate form without mention of individual cities, schools or districts, has been made available as Section I of this report for public distribution.

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FOREWORD

In the original proposal submitted as the work plan for the research effort reported herein, a rather ambitious but still relatively orthodox statement of work was delineated. The attempt was to be made to determine factors associated with high and low rates of attrition of ethnic minority students in vocational education programs. These factors were to be related to six (6) functional areas of the instructional setting:

1. Teacher characteristics
2. Teaching techniques
3. School atmosphere
4. Supportive services (placement, couseling, financial aids, etc.)
5. Participation of parents and community
6. Organizational format

Additionally, the sample programs, to be drawn from approximately fifty large school districts across the country, were to be divided into a number of stratifications to yield more refined data concerned with (1) types of programs - high schools, community colleges, and exemplary other vocational programs; (2) four major ethnic or racial groups - American Indian, Black, Spanish-speaking and Asian; and (3) five types of occupational classes - union-craft, new careers, business, preprofessional and those traditionally associated with female enrollments - cosmetology, vocational nursing, etc. The end in view was the construction of models of these programs, composed of elements associated with success in terms of attraction and retention of minority students.

The methodology was traditional. Course profile sheets were to give pertinent data about programs, enrollments and attrition rates, so as to permit selection of a representative sample of programs to be canvassed. Once identified, the programs and classes, through their teachers and students, were to be surveyed by questionnaire concerning the factors relevant to the study. Follow-up visits to a selected sample of high and low drop-out programs were to be made to reinforce data elicited by questionnaire. All data was then to be analyzed and conclusions and recommendations formulated.

The larger school districts across the country, with some notable exceptions, were desirous of participating in the study. Preliminary indications, as late as the sixth month of the contract, were that some sixty programs, fulfilling all expected protocols and stratifications, would be included. Beginning about the seventh contract month, two events critical to the anticipated successful conduct of the study occurred:

1. The Parents and Students Educational Rights and Privacy Act of 1974 (P.L. 93-380) which implied a proscription on the release of students' names and addresses without parental permission, prevented districts from releasing the required information. The injunctions implied in the Act served immediately to cause several of the very largest school districts to withdraw their original offer to participate. For other districts, the absence of clear-cut guidelines for implementation of P.L. 93-380 which were to be issued by the Federal government in early 1975 but were not, delayed the decision to participate until it was too late to include these districts in the survey, in view of deadlines in the contract and the impending end of the school year.

2. Certain districts, particularly in the community college sector, though completely desirous of participating in the study, found that their record systems were not capable of identifying racial/ethnic enrollments by drop-out, or even individual class (course) categories. Three of these, including two large Mid-western jurisdictions, participated with teacher response only.

Fully one-third of the some sixty (60) districts who intended to cooperate eventually determined, in spite of their previous willingness, that they could not comply with the requirements of the commitment. In several instances district personnel either sent the questionnaires to dropped students for us or permitted us to select an alternative sample of students still enrolled in the selected classes and distribute the questionnaires to them without the necessity of providing specific addresses and names. In the case of one large Eastern district, officials were willing to have the Contractor meet with parents of students to explain the questionnaire and the study beforehand, but in view of the timing (the administration offered the alternative in mid-May, 1975) and the lack of assurance that we would still be successful in getting any responses in that city, we declined the offer.

The maximum number of responses from teachers and students which we estimated we could expect was approximately 750. This estimate assumed fifty cities participating, with five classes per city, an average enrollment of twenty students, and an average of four dropped students from each of the 250 classes reporting (15% is the approximate current average attrition rate for 11th and 12th grades combined in the U.S. high schools).* We paid each student an honorarium of three dollars for a completed return; this inducement, on the basis of our previous experience, was expected to yield a 60% response, or 750 returns, assuming also that teachers, one from each of the 250 classes, without recompense, would respond in the same proportion as students.

The final usable responses totaled 267 questionnaires, or 36% of the maximum original estimate and 43% of the actual mailings.

Despite these developments, and the resulting short-fall in responses, there are sufficient data, and sufficient tendentiousness within the data, to warrant a wealth of inferences and conclusions regarding the original assumptions and intentions of the study. Not all of the conclusions are optimistic nor are they by any means uniformly definitive or unassailable. In any event, they should be seen in the context of the larger effort of which they are a part. This was the first year of a research program by the Bureau of Occupational and Adult Education and thereby a critical test of the research and development, knowledge production and utilization capability of the vocational educational system in this country. Considered in that perspective, this report is a record not only of an educational research initiative in a specific problem area, but also a searching commentary on what will be required of the national school system if productive and meaningful research, which must certainly be the last hope for a richer educational opportunity for young people in this country, can indeed be conducted at all.

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*Extrapolated from U.S. Dept. of HEW, Digest of Educational Statistics, 1971, Ed., NCES, Washington, D.C.; and NEA, Research Division, School Dropouts, Washington, D.C., 1967.

I. EXECUTIVE SUMMARY

The general aim of this investigation was to determine factors in the learning environment, particularly the classroom setting, which appear to relate to the attraction and retention of students of ethnic and racial minority backgrounds in vocational education. The time period covered by the study was the twelve-month span from July 1, 1974 to June 30, 1975.

Objectives

The specific purposes of the study were: (1) to identify vocational education programs, particularly urban school programs, that are presumed to be meeting the special needs of specific groups of minority students; (2) to identify within these successful programs instructional and motivational techniques and strategies that are, or have been, effective in attracting and retaining minority students in vocational training; (3) to describe these techniques, strategies and approaches so that they can be used by vocational teachers in other schools across the country; and (4) to recommend models of vocational education program components which would attract and retain students of minority backgrounds.

The primary focus was on elements in the instructional setting -- teacher characteristics; teaching methods, conditions, techniques; organizational arrangements, etc. -- which seemed to be logical implementations of insights suggested, implied or verified by latest research findings on learning characteristics and learning styles of minority students.

Six functional areas of school operations were studied, with an eye to exploring elements within each which capitalized on the suggestions of contemporary research: (1) teacher characteristics; (2) instructional methods and techniques; (3) the total school environment; (4) supportive services; (5) organization; and (6) student and community participation.

Methodology

A series of contacts with exemplary programs suggested by the literature and with approximately a hundred and fifty (150) of the largest (and other) school districts in the United States was made, inviting these jurisdictions to participate. Included in the contacts were high schools, community colleges, regional occupational centers, technical institutes and adult manpower training programs. These successive canvasses yielded approximately fifty (50) programs who agreed to cooperate. The strictures imposed on release of student information by P.L. 93-380 (the Educational Rights and Privacy Act), effective November 19, 1974, and the inability of districts to provide data in the forms required, reduced the number of participating districts to thirty-one (31) for the study. They included two community college programs and twenty-nine other jurisdictions which operated high school and adult programs.

Participating districts were asked to nominate, on a Course Profile Form, one class with substantial enrollments of Black, American Indian, Asian or Spanish-speaking students in each of five types of classes: (1) union crafts training (Auto, Machine Shop, Electricity, etc.); (2) career preparation in courses previously subscribed to predominantly by women (Cosmetology, Nursing, Medical Assistant, etc.); (3) new careers preparation (Media Aides, Community Service Aides, Allied Health Service Workers, etc.); (4) preprofessional training (Engineering Technology, Computer Sciences, Architectural Drafting, etc.) and (5) business vocations (Secretarial, Clerk-Typist, General Office, etc.).

A spread of classes among geographical regions, types of programs and ethnic groups, except for Asian-Americans, was achieved in the thirty-one cooperating districts. There were at least two programs with heavy American Indian enrollment, six with predominantly Spanish-speaking students and the remainder with substantial enrollments of Blask students.

Individual classes, on the basis of the districts' notation on the initial profile, were characterized by high or low drop-out. The criterion used was termination of the course for any reason in the 1973-74 school year. "High" drop-out was decreed to be 16% or more; "low" drop-out was 15% or less.

Districts provided, in most cases, names and addresses of dropped students and names of teachers of the classes and the schools where they could be reached. Where a district felt it was still unable to release student information, a comparable group of currently enrolled students in the same classes was used as part of the respondent student group.

A questionnaire, either for teachers or for dropped or currently enrolled students, were mailed to each of the addresses provided or, in the case of current students, to the teachers of the classes for distribution to a sample of minority students. A total of four hundred ninety-three (493) questionnaires were so distributed to students; and one hundred twenty-one (121) to teachers.

Two hundred five (205) student questionnaires and sixty-two (62) teacher questionnaires were returned; or 36% of the original total of mailings. Students were paid an honorarium of three dollars for a completed response. Teachers were not paid for returning the instrument.

As a means of providing a descriptive background and to reinforce information received from the respondents, site visits were made to twenty (20) of the districts which nominated high and low drop-out classes. Personnel at the district offices, the school site or in the community were interviewed during these visits, which were of one to two days' duration.

The completed instruments were coded for electronic data processing, and summaries of responses were then tabulated.

Findings

The major findings of the study are:

1. Teacher Characteristics

With respect to characteristics of teachers, the study indicated that for at least Black students, Black teachers made some constructive difference between high and low drop-out. Age seemed not to be related -- most teachers were over 40, and the low-drop classes did have a larger percentage of them. No trending appeared in the trade background or out-of-class activities of teachers as related to attrition of enrollment. There was, however, a strong, persistent trend in the low-drop category toward teachers who had a good understanding of young people and of other races; who were up-to-date in their subject field; who were always available to talk to students about their problems; and who treated students "like mature adults."

2. Instruction

Lower class size was the fourth most pressing wish of the instructors seeking change. Since the ratios of students to teachers were only in rare instances above 20-to-1, it is apparent that teachers found even these numbers a handicap. However, drop-out did not reflect any relationship. Time of class meetings was of major concern to ethnic groups: Indians seemed least able to tolerate morning hours, Blacks next and Whites and Spanish-speaking students not very concerned about early meetings.

Fifty-percent of students went off campus for some part of their instruction, and both students and teachers accounted this a desirable component. All ethnic groups wished more visiting experts from industry, as did teachers; students also seemed to desire greater use of media, visual aids and hardware such as models and mock-ups. More paraprofessionals -- teacher assistants, aides -- were desired by Asians and Spanish-speaking students, but not by Blacks or Indians. The project or team method was used extensively throughout the classes surveyed, most prominently among Black students.

Individualized instruction and shorter instructional units also seemed to be attractive in strong measure, especially to Spanish-speaking students, and teachers rated the provision of more such personalized teaching a high priority.

Students generally felt they had adequate facilities, equipment and supplies. Teachers emphatically did not. In small but consistent deviation, minority students did not feel they had sufficient space, equipment or supplies, the Black students' sentiments the strongest in the three groups in this regard.

3. School Environment

All indicators pointed to the provision of a friendly, liberal atmosphere as being conducive to minority group learning. On issues such as smoking, freedom of speech and movement, liberal dress codes and provision of due process, Indians were foremost in counting these as helpful, Blacks next and Spanish-speaking students last.

Indians seemed to get along with school administrators best, but poorest with one another. Indians and Blacks had poorer relations with faculty than Spanish-speaking students. Blacks and Spanish heritage students were thought to have poorer relations with police than Indians, but the differences were slight. Non-teaching staff related to Indian and Spanish students excellently, but there was a strong inference that Black students had some problems in this connection.

4. Supportive Services

Almost uniformly, students regarded supportive human development services (free meals, free tools, financial aids, etc.) as helpful, most helpful in the case of Indians, next with Blacks, closely followed by Spanish-speaking students. Indirect aid (placement, aptitude testing, preparation for tests, etc.) was considered a higher priority than direct aid (cash loans or grants, free meals).

5. Organization

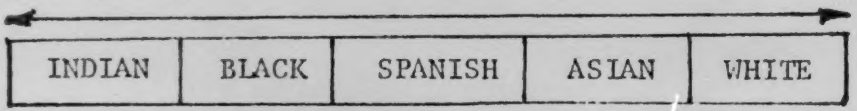
Using the extent of provision of different organizational components as a reflection of its compatibility with the needs of the ethnic groups served, the same progression was noted with respect to students' exposure to these components. Indian, Black and Spanish-speaking students, in that order, had, generally speaking, a diminishing positive attitude toward innovative conditions operating in the organizational format. The school open evenings, receiving credit for training with employers, open enrollment, ability to work while attending school, and ability to take more than one voc-ed major at one time all showed this general tendency, diminishing in importance from Indians to Black to Spanish-speaking students.

6. Participation

In respect to parent and community participation in policy-making at school, labor-management participation in school affairs and parents of students hired as paraprofessional employees of the school district, the inverse order was true: the Spanish-speaking community appeared to be more involved than Blacks and Blacks more than Indians. (It needs to be pointed out that of the two predominantly Indian programs which were included, one was exclusively a residential (dormitory) program involving students from all sections of the country. The likelihood of parent participation in this case would have been virtually nil).

7. A Minority Model

The collective impressions from site visits, the findings of the study and other, less obtrusive implications from the data analyzed seemed to confirm the existence of a basic changing learning style among minority groups on the order of the following progression:



It appears that one can, with some degree of confidence, calculate the compatibility of certain treatments (e.g., visual aids, class starting times, etc.) with different groups' cognitive styles by using this simple guide. There are overlappings, but in general, the sequence appears viable. The continuum can be read in either direction as a sequence from abstract-to-concrete or from psychomotor-to-affective-to-cognitive or other similar gradients, but it cannot be read as a measure of desirability or values. There are no better or worse learning styles; there are only different styles.

THE MODEL

Beginning below and continuing on the pages following are twenty elements in the school environment which, on the bases of findings in the study, appear to merit consideration in contemplating improvements in any educational climate being developed for minority students in vocational education. We have already pointed out some of the deficiencies in the data base from which the suggestions are drawn. A number of the recommendations, therefore, are intimations which have been actuated by very tenuous indicators in the findings of the study, ratified by strong subjective impressions on the occasion of site visits. In any case, the collective contribution of experience, findings of the study and subjective impressions constitute the rationale for advocating consideration of these elements.

A. Teacher Characteristics

Indian	Black	Hispanic
(1. AGE:) Older persons, male	Young persons, mixed gender	Mature males primarily; women in appropriate occupations
(2. RACE/ ETHNICITY:) Need few Indians	Need substantial numbers of Blacks	Need a considerable number of Spanish-speaking instructors

A. Teacher Characteristics (Cont)

Indian	Black	Hispanic
(3. PERSONALITY:)		
a. Understands Indian tradition	a. Understands modern, urban, black, young people	a. Understands Mexican-American, Hispanic tradition
b. Understands young people	b. Knowledgeable in subject area	b. Knowledgeable in subject area
c. Knowledgeable in subject field	c. Personable, "cool", but involved	c. Personable, "intelligent," but approachable
d. Available to talk over problems, "friendly" but stern		

B. Instruction

Indian	Black	Hispanic
(4. TIME OF CLASS:)		
Later starting times	Later than typical school day	Early
(5. CLASS SIZE:)		
7 - 12	12 - 15	15 - 18
(6. OFF-CAMPUS EXPERIENCES:)		
Unquestionably	Highly desirable	Desirable to some extent

B. Instruction (Cont)		
Indian	Black	Hispanic
(7. USE OF MEDIA, DEMONSTRATIONS, MOCK-UPS, ETC.:)		
80% of the time if possible	50% of the time	25% of the time
(8. PARAPROFESSIONALS:)		
Desirable	Desirable	Critical
(9. LEARNING IN TEAMS:)		
Not critical	Very Important	Important
(10. SHORTER UNITS OR MODULES:)		
Not critical	Important	Very Important
(11. INDIVIDUALIZED INSTRUCTION:)		
Desirable	Important	Very Important
(12. EQUIPMENT AND SUPPLIES:)		
Important	Critical	Very Important

C. School Environment

Indian	Black	Hispanic
(13. FRIENDLY ATMOSPHERE:) Highest Importance	Very Important	Important
(14. ETHNIC MIX:) Tolerate separatism well	Need some other ethnicity	Need considerable other ethnicity
(15. DRESS CODE, SMOKING:) Conform to own conservative style	Liberal, but structured	Conservative, stuctured
(16. JUSTICE, DEMOCRATIC DUE PROCESS:) Very Important	Very Important	Very Important

D. Supportive Services

Indian	Black	Hispanic
(17a. BILINGUAL TEACHERS:) Very Helpful	Of Some Help	Helpful

D. Supportive Services (Cont)		
Indian	Black	Hispanic
(17b. TUTORING:) Extremely helpful	Very helpful	Helpful
(17c. FREE LEGAL AID:) Extremely helpful	Helpful	Very helpful
(17d. FREE HEALTH SERVICES:) Critical	Helpful	Helpful
(17e. FREE MEALS:) Critical	Very Helpful	Helpful
(17f. CASH LOANS/ GRANTS:) Of some value	Valuable	Not critical
(17g. APTITUDE TESTING:) Important	Important	Important

D. Supportive Services (Cont)

Indian	Black	Hispanic
(17h. TRAINING TO TAKE EMPLOYER TESTS:) Very Important	Very Important	Very Important
(17i. PART-TIME JOBS:) Critical	Very Important	Very Important
(17j. FREE TOOLS:) Indispensable	Important	Very Important

E. Organization

Indian	Black	Hispanic
(18. INNOVATIVE ARRANGEMENTS:)* (*double-majors, credit for training with future employers, open enrollment, work-study programs, school open evenings and weekends) Very Desirable	Very Desirable	Very Desirable

F. Participation

Indian	Black	Hispanic
(19a. PARENT AND COMMUNITY PARTICIPATION ON SCHOOL COMMITTEES:) Critical	Important	Very Important
(19b. STUDENT PARTICIPATION ON SCHOOL COMMITTEES:) Extremely Desirable	Desirable	Very Desirable
(20. HIRING OF PARENTS AS PARAPROFESSIONALS:) Great Help	Some Help	Not Critical

Recommendations

In view of the fact that the project summarized herein was part of the first year's effort of a comprehensive research program, several recommendations are made in behalf of the future research initiative:

1. Issue some precise directives to guide school districts in determining the actual information whose release is prohibited by P.L. 93-380. The impediments which the subject research project suffered as a result of puzzled or hasty interpretation of the law seriously damaged the validity of the survey.

2. Develop a cooperative policy with data-gathering departments of the Bureau of Occupational and Adult Education to modify reporting requirements for districts and/or states, so that reports

on enrollment, placement and drop-outs are classified by racial/ethnic identification. Many school districts have information systems whose documents are not aggregated in usable research format.

The following recommendations, in view of tenuous authenticity of the findings of the project, are offered as much as a selection of fruitful areas for further research as they are admonitions to practitioners to attempt changes in present learning environments:

1. Ratification of verifiably different learning conditions -- starting times, length of courses, small v. large classes, variable densities of ethnic mix, comparison of verbal v. concrete materials presentation and others -- should be attempted in both primarily integrated and primarily separatist settings.

2. Some attempts to study an elaboration of teacher personalities across the three major ethnic groups in voc-ed programs should be made. The gravitation of minority students to teachers with particular minority backgrounds and particular skills in dealing with young people has hardly been examined in depth.

3. The total process of enrollment, instruction and follow-up appears in most instances not to be viewed as a systematic commitment. Teachers lamented the fact that most students came to their classes without being screened, and they were not particularly impressed by the evaluation which their schools provided for their programs. School officials, perhaps with assistance from the Bureau and university centers, should develop a functional model for quick, systematic, ongoing evaluation of the individual and total vocational education programs.

4. There needs not only to be greater involvement with business and industry in the programs, but some evaluation of such involvement which would lead to the development of the most promising types of business-industry participation. The traditional advisory committee arrangement does not seem any longer to be more than a symbolic or show-case commitment. In this connection, schools might look for ideas to the success of the employer based career education models which have been operated and tested for some time by the National Institute of Education.

5. Closely related is the matter of contacts with experts from the community; both teachers and students determined that they would appreciate more of such intervention. This does not seem a difficult additive to infuse into present operations.

6. There appear to be certain configurations of supportive services to which minority students relate more than they do to others. Screening, aptitude testing, preparation for test-taking, placement, and other indirect service seemed to be held in greater esteem than direct largesse, as for instance, cash loans and grants, free meals and free health services. Some study should be given to the identification of the optimal constellation of services definitely suited to respective ethnic groups.

7. The need for a meaningful structure within an open, friendly total atmosphere seemed apparent. The wish for freedom of expression and a sense of fairplay would seem to augur a promising potential for a relaxation of some basic blocks in the school's overall structure as against any permissive atmosphere having to do with smoking, male-female relations or dress codes. The need seems to be in the area of wider choices of subjects, alternative patterns of courses, variable scheduling and basic routines of the school. The technical institutes, regional occupational programs and community colleges appear to represent an "adult" model which might feasibly be tried with our 11th and 12th grade students. An experimental study in this direction might be difficult to mount, but it begs trying.

II. THE PROBLEM

The specific problem addressed by this research project is the proportionally small numbers of Black, Spanish-speaking, Oriental and American Indian students who enroll in and successfully complete vocational education programs. Far fewer members of these minority groups are represented in the enrollment of occupational preparation programs than their representation in the general population indicates should be expected.

Title I, Title III and Title VII of the Elementary and Secondary Education Act of 1965 (P.L. 89-10), Parts B and C of the Vocational Education Act of 1963 (P.L. 90-576), its 1968 Amendments, and other continuing statutes and resolutions have been directly concerned with this problem. Emphasis in much of this and similar legislation, however, has been on the general requirements of the job market, rather than on the differential educational needs of people who will seek employment. We are beginning to realize that minorities and the socioeconomically or otherwise handicapped have special needs which are different across different groups, and that these needs derive far more from cultural and genotypic factors than they do from social or ecological circumstances, important as those may be. It is no longer enough to say that ethnic minority students enroll in vocational programs in disappointing numbers; that they perform poorly when they do enroll; or that they drop out in disproportionate numbers before acquiring significant marketable skills. These are the unhappy facts, but any real understanding of the problem requires a deeper appreciation of the precise nature of the causes of the special needs of minority students.

Some notion about the interrelationship of influences which predispose certain students to "disadvantagement" in our society is implied in the language of the Vocational Education Act (Amendments, 1968) itself:

> (sec. 123(6)-B): "due consideration will be given to the needs...particularly persons with academic, socioeconomic, mental and physical handicaps that prevent them from succeeding in regular vocational education programs."
>
> (sec. 123(6)-C): "...particularly those in economically depressed areas and those with high rates of unemployment."
>
> (sec. 123(16-A): "...grants shall be...allocated...to areas of high concentration of youth unemployment and school dropouts..."

The statistics for "high youth unemployment," "economically depressed areas," "dropout," "academically and socioeconomically handicapped," at least in the urban centers where 80% of the people live, are in fact statistics describing Black, Brown and other ethnic minority populations. The ready accuracy with which we may use "ethnic minority" to connote an entire spectrum of deprivation is at once a tragedy and an insight. The tragedy is what we are in some small measure proposing to redeem. The insight is that, given the host of factors which concretely as well as psychologically bear on the educational fortunes of minority youth, it is not likely that a unilateral approach to the problem will offer any solution. It is a complex dilemma, and some discussion of this complexity is in order.

Social Factors. The total environment of the person may be inimical to any inclination to learn. Parents may be perceived as apathetic or ineffectual participants in the total political, social and economic process.[1] Successful role models may be absent, and negative models conspicuously idealized. Value and attitude formation may be influenced by the apparent rewarding of illicit behavior by the street culture. The language and meaning-making ability of parents and siblings has enormous effects on the students' appreciation of authority, independence, logic, even past-present orientations and life goals.[2] The surroundings may be devoid of supportive validation that anything really matters: dilapidated buildings, few reading materials, absent parents, limited recreational facilities, etc.

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[1] Tuma, E., and Livson, N. "Family Socioeconomic Status and Adolescent Attitudes Toward Authority." Child Development, June, 1960.

[2] Fantini, M., and Weinstein, G. The Disadvantaged: A Challenge to Education. Harper and Row, New York, 1968.

Economic Factors. While poverty is not causally related to motivation or learning ability, it is a major contributing accessory. Institutional barriers to employment, a choice of housing limited by income or discrimination, prejudicial hiring practices, inability to afford automobile transportation, lack of spending money and other economic considerations conspire to lower the self-esteem, motivations and aspirations of minority youth. The results of these handicaps are nowhere so graphically displayed as in the occupational structure of the economy. Average annual unemployment rates for minorities have been at least twice that of Whites for virtually every year since World War II. Almost half of all employed minorities are working in jobs below the semi-skilled level, compared to only 15% for White workers. Minorities make up less than 6% of all employed craftsmen, but comprise more than half of all household workers and nearly half of all laborers.

Cultural Factors. Dispiriting as the recitation of handicaps associated with minority status in this country may be, the question persists -- are these conditions exclusively the results of prejudice and discrimination, or does real racial isolation develop from our almost complete ignorance of and disrespect for, cultural differences in the schools? Do we train the society, by default, to perpetuate and aggravate the myth of white superiority?

In an article entitled "White Rites Versus Indian Rights," A.D. Fisher writes:

> North American education, among other things, is a series of rituals, a series of rites of passage. From kindergarten to grade twelve or fourteen, the child passes through a multitude of statuses and plays more roles. The result of the whole process is the development of a particular sort of individual...who exemplifies and reflects the values of...and who is prepared for North American industrialized (White) middle-class society.
>
> But what would happen if we were to take this ceremonial system out of its context, North American middle-class society, and place it in a wholly or partly alien context such as an Indian reservation? The answer is that unless there were community support for it, it would fail...Let me stress this point. It would be the rite of passage, the rituals recognized and enjoined by middle-class society that would fail, not the Indian student.[3]

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[3] Trans-Action, Vol. 7, No.1, November, 1969. pp. 29-33.

Studies indicate that on a measure such as the California Achievement Test, minority students, with the exception of the Asian student, usually start out ahead of, or equal with, their White peers, then gradually fall behind in their achievement. Fourth grade Indians, for instance, who are found to average 4.3 on achievement tests when their White counterparts score only 4.1, will by the eighth grade be surpassed by White students, who achieve an 8.1 average while Indian students attain only 7.7. Test scores for these youngsters consistently decline between grades five and seven.[4]

It is important to emphasize the character of the critical interface which occurs at the end of grade four for *all* students in American schools. For one thing, as developmental psychology tells us, the youngster leaves a predominantly introspective, subjective, inner-oriented world and enters a world that will now be dominated by external demands. His will must now subserviate to the will of society. Suddenly, the pictures vanish from his texts; his books are more and more made up of words. Symbolic life -- life described and read about -- replaces real life -- life experienced and acted out. Abstractions in the form of mathematics theories and scientific principles replace concrete identities. Subjects are learned, not for their immediate utility, but for an indeterminate use in a distant future. This is where we take the giant step into the cultural gap.

For each minority group in our schools, the question becomes surpassingly urgent: what preparation must education provide as a passport to the later rituals and role transitions of the White society *which will not violate the appropriate rituals and role transitions of the indigenous culture*? This to us seems the overwhelming issue; it pinpoints the real need of minority students. Can we blithely assume that all White middle-class rituals and events will enrich, support and give meaning to the events of school for all students? Or, more importantly, that these events will be perceived as goals toward which success in school will advance them? Good grades, competition, school savings accounts, awards and prizes, club memberships like Boy Scouts, Rainbow Girls, choosing a career, honoring war heroes, the senior prom, preparation for college, challenge of adults, and independence from parents and family...these are the rites of passage which, symbolically but permanently deposited in the psyche of all our students, will decree, more than anything else students experience, how they will deal with their world. Are they the appropriate rituals for all students?

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[4] *Ibid*., p. 32. See also Berkeley Unified School District, *Emergency School Assistance Act Proposal*, December, 1973.

They are, if we wish to perpetuate the plight of minorities in this country and maintain the status quo. But they are dangerously short-sighted, if we hope to change anything.

Take these rituals as applied to the American Indian, and they become almost fatuously irrelevant. For example, the Waxes' study of the Pine Ridge Sioux emphasizes that education and being a good Indian are two different processes. The Sioux say that full-bloods think that:

> ...education harms no one, but on the other hand, it has almost nothing to do with being a good person...that a child could be educated to the point where he would be critical of his parents or attempt to disassociate himself from them is beyond their comprehension.[5]

Vocational preference tests, such as the Kuder, have been found to be hopelessly invalid when administered to Indian students as a measure of future placement in school programs. Blood Indians rarely select any occupation for which any formal schooling is required. They choose ranching, haying, bronco-riding, etc., all of which they are already learning and constantly practicing as a part of their everyday life. Navajo students on the reservation need to have explained to them the meaning of even the words for many Anglo occupations, since, living in an environment that has no towns, street lamps, drug stores, theatres, supermarkets, banks, beauty parlors or much else that is commonplace in the dominant culture, they may never have seen or had experience with practitioners of most of what we think of as ordinary occupations.

We may say, "But this is the reservation. The modern Indian lives in the contemporary White culture, and, of course, he should easily be able to adapt to new requirements and a new 'life style.'"

This is the triple fallacy of our so-called democratic cultural pluralism. It says, on the one hand, that a cultural heritage, however that is defined, is something that can be transformed in a school-term, or a generation, or a century, or at any rate, in a fairly short time. Secondly, it rather insists that a minority culture should and must change to fit the dominant culture -- it never insists that the dominant culture itself should change. Finally, it is melioristic; it implies that the minority culture is somehow inferior and that its very salvation *depends* upon its absorption by the dominant culture. None of these could be farther from the truth. We will squander monumental amounts of energy in compensatory education programs, ethnic studies programs, curricula of affect and other learning approaches unless we suffuse them with (1) a genuine appreciation of how long the African, Indian and Hispanic cultures have existed and how absolutely unchanging some of the elements in these traditions are likely to be; (2) an understanding of just exactly how differing traditions may co-exist; and (3) a humble acknowledgment that these minority cultures are, at the very least, equal to the White Western culture and perhaps, in some respects, given the present problems facing the world, much superior.

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[5] Fisher, op. cit., p. 33.

A Case Study. We need some shock to be applied to our thinking, so that we can sense the magnitude of the sometimes incredible differences in people which we are talking about. Following is an excerpt from the *Final Report: Evaluation of Navajo Community College*, which the author directed in 1969 for the Office of Economic Opportunity, Washington, D.C.[6] It describes the steadfastness of traditional modes of behavior in one minority group which has been in the United States for 25,000 years. Bear in mind that the Black, the Brown and the Yellow traditions stem from similarly ancient sources, and that representatives of these other minority groups, in downtown Atlanta, in a school in East Los Angeles, or in San Francisco's Chinatown are even today, at least sometimes, manifesting from the seeds of impulses that stream in an almost unbroken line from a source which first began shimmering high in the Andes or on the plains of Africa or deep in the prehistoric jungles of Malaysia.

Here is the excerpt:

"III. TRADITION AND THE COLLEGE

A thousand times, in a thousand ways, if you are to live and work among Navajo people, you will come upon that mysterious propensity in them, the thing that *is* the

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[6] Pacific Training and Technical Assistance Corporation, Berkeley, CA. 1969 (Mimeo).

Navajo, which you will not understand and, unfortunately, which you will probably misinterpret. It has to do with the basic premises, the basic values held about life. And if one assumes that at this late date, the Indian should be acculturated enough, or infected enough, by the White culture to have lost his valuation of these "alien" tendencies, one does not appreciate how hermetically and absolutely the Indian tradition has been sealed off from the Anglo influence. The silence, for instance, which the Navajo associates with tranquility and wisdom, and by which demonstrative effusions make for him the objectionable contrast is recounted as the hallmark of the ideal Egyptian citizen between the 16th and 18th Centuries B.C.:

> The key word for the developed spirit of this period was 'silence'...As objectionable contrast to the silent man, the texts offered the 'heated' or 'passionate man, who was loud of voice.'[7]

In another connection, we find Kluckhohn reporting about modern Navajos:

> Like produces like and the part stands for the whole. These are two laws of thought almost as basic to Navajo thinking as the so-called Aristotelian "laws of thought" have been in European intellectual history since the Middle Ages.[8]

This sounds almost like an echo of what Frankfort says of Egyptian people of 3,000 years ago:

> In similar manner we explain the curious figure of thought pars pro toto, 'a part can stand for the whole;' a name, a lock of hair, or a shadow can stand for the man becuase at any moment the lock of hair or shadow may be felt by the primitive to be pregnant with the full significance of the man.[9]

The point here is that when we are addressing ourselves to Navajo or other Indian youth as teachers, introducing abstractions not only in mathematics, say, where the relationship between identities is ultimately a real one, but in the social studies, in psychology, in politics, we may be confronted, in most of our listeners, by a mode of thinking that appears to be contradictory to ordinary logic and which does not resist, but cannot even admit, knowledge of the phenomenal world that is based on a division between subjective and objective:

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[7] Frankfort, Henri, et al., Before Philosophy, Penguin Books, Baltimore, MD. 1968. pp. 125-126.

[8] Kluckhohn, C. and Dorothea Leighton, The Navaho, Doubleday, New York. 1962.

[9] Frankfort, op. cit. p. 21.

> We have hitherto been at pains to show that for some men thoughts are not autonomous, that they remain involved in the curious attitude toward the phenomenal world which we have called a confrontation of life with life. Indeed, we shall find that our categories of intellectual judgment do not apply to the complexes of cerebration and volition which constitute mythopoeic thought. And yet the word 'logic' as used above is justified. The ancients expressed their 'emotional thought' (as we might call it) in terms of cause and effect; they explained phenomena in terms of time and place and number. The form of their reasoning is far less alien to ours than is often believed. They could reason logically, but they did not often care to do it. For the detachment which a purely intellectual attitude implies is hardly compatible with their most significant experiences of reality. Scholars who have proved at length that primitive man has a 'prelogical' mode of thinking are likely to refer to magic or religious practice, thus forgetting that they apply to Kantian categories, not to pure reasoning, but to highly emotional acts.[10]

The Indian in front of us, in our classroom, may be using a completely existenial mode of experiencing, through the emotional center, and our heavily weighted intellectual approach may only be confusing him, even while it titillates us. Understand, there is no more real approach to knowledge than through the emotions: this is the basis for the White man's frantic pursuit of perceptions through marijuana, LSD, psilocybin, Zen, Tibetan "meditation in action," and the rest. It may be the unconscious reason why Whites are so interested again in the other cultures, the Black, the Brown, the Yellow, and the Indian. They wish 'mind-expanding' experiences which go beyond the narrow associative thinking which imprison them; they want to know life as it really is, in this moment, now, as it feels, not how we ordinarily see it, through a screen of mechanical associations that have been taught us, by parents, by books, by television, by society.

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[10] Ibid., p. 19.

Let us try to mention a few more examples of the ingrained Navajo "view of life" and see how it operates in the context of a school that tried to reconcile those views with another view of life.
Item:

> Too often White speakers employ phraseology, idiomatic expressions, similes and allegories in delivering discourses which must be extemporaneously translated, that baffle and confuse the native interpreter. The result is that he either misinterpres†s due to misunderstanding, or says something entirely at random to avoid embarrassment to himself.
>
> Use of abstractions, similes, allegories and idiomatic expressions in speaking should be minimized, and entirely avoided, if at all possible.[11]

'Formula 3,' as Kluckhohn reports it in the Navajo view of life, is avoid excesses.

> Even such everyday tasks as weaving must be done only in moderation. Many women will not weave for more than two hours a day; in the old days unmarried girls were not allowed to weave for fear they would overdo, and there is a folk rite for curing the results of excess in this activity. Closely related is the fear of completely finishing anything: as a 'spirit outlet' the basketmaker leaves an opening in the design; the weaver leaves a slit between the threads; the singer never tells his pupil all the details of the ceremony lest he 'go dry.' Singers also systematically leave out transitions in relating myths. This fear of excess is reflected also in various characteristic attitudes toward individuals. There is, for example, a folk saying: 'If a child gets too smart, it will die young.' The distrust of the very wealthy and very powerful and the sanctions and economic practices which tend to keep men at the level of their fellows have already been mentioned.[12]

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[11] Kluckhohn and Leighton, op. cit., p. 291.

[12] Ibid., p. 306.

No excesses, no abstractions, no similes, no allegories, no idiomatic expressions, no competition; don't get your students too smart, and never completely finish anything. So teach, brother...

There is the suggestion here of hyperbole, that we are making an exaggerated case. And we have already intimated that accepting the thesis that one can generalize about the strength of these influences operating in any given Navajo individual is dangerous. Yet there are certain gross phenomena, large processes and events, which baffle us as we try to reason logically about them, that are seemingly explained when one remembers the kind of facts -- truths about the Navajo tradition, if not the Navajo individual -- which we are citing.

A case in point. In mid-spring at Navajo Community College, a group of faculty, mostly Anglo, conceived the idea of sending some students to Alcatraz Island, recently occupied by Indians. The administration of the College never definitely opposed the plan; in fact, offered enough encouragement, in terms of conditional financial and logistical support, to cause the interested faculty finally to attempt the trip. It was to be undertaken during Easter week, the spring recess. It did not eventuate until several weeks later, when the students should have been in class. No matter what the success or failure of the trip ultimately amounted to, students left on the reservation quit attending classes, since their peers were absent, too, and when the contingent returned, all of the Anglo faculty who had made the trip were fired.

The vacillation of the administration, in terms of now supporting, now discouraging the trip, is incomprehensible in the ordinary view, yet it is thoroughly in keeping with the existential "cause-effect" mode of thinking typical of the Navajo. Until a thing happens, a Navajo cannot tell you how he will feel about it, is a summary view. In the case of the Alcatraz trip, the Navajos in charge obviously knew how they felt once the trip was made. This is an oversimplification of the events surrounding this particular phenomenon, but it is a pointed case of the manner in which a seemingly "irrational" approach to a problem may be the most obviously logical rationale -- if one remembers the Navajo way.

Another case in point. In a questionnaire given to students at NCC, a number of faculty, again mostly Anglo, were reported by students to be popular, interested, and to some extent even idealized by students. These were faculty whom the administration regarded as "agitators." They spent a great deal of out-of-class time with students, worked hard, but also appeared to be instigating political action and involvement on the part of some students. It is interesting that despite the fact that students felt these teachers to be very popular with them, attendance checks revealed that students did not attend the classes of these "popular" instructors with any more frequency that they did the classes of other teachers, and in some cases, attended less frequently. Why? Video tapes of one of the most popular Anglo instructors show him, in class, to be very energetic, talking rapidly, moving about quickly, using language not vastly different from what his New Yorkerish background would have predisposed him to use with undergraduates at Columbia or Harvard. Did the students stay away because they distrusted his passionate, hyperactive deportment? One wonders. The Navajo, we recall, equates wisdom with silence and tranquility.

The irony of it is that the very qualities which would have made this young man a great teacher in the Anglo setting were the very qualities which insured his failure in the Indian classroom: energy, deep interest in students, verbal competence, intellectual involvement, enthusiasm, and the rest."

A Unified Perspective. In any synoptic view of man, we see that practically all human characteristics, except physical ones, are distributed in equal proportion across races and cultures. Intelligence, ability to learn, the disposition to be honest or dishonest, the capacity to love or hate, to be industrious or lazy, and so on, are not the exclusive province of any one group. Why one cultural group succeeds in our schools in disproportionate numbers while other groups do not is a matter of many factors, but it would not be amiss to account that it is based on the fact that almost all schooling in the Western world is based on the material to be learned rather than on the neuroanatomical realities of the learning apparatus in human beings. Recent research into the brain, especially that dealing with hemispheric specialization, has caused some investigators to conclude that American education, with its heavy emphasis on left hemisphere functions, has resulted in "an entire student body being educated lopsidedly."[13] This new body of research, together with neurophysiological discoveries of the last twenty years, may finally reveal the real differences in learning modes and capabilities of people.

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[13] Bogen, J. "Some Educational Aspects of Hemispheric Specialization," The Educator, 17:2, Spring, 1975. p. 27.

"Different strokes for different folks" is a shibboleth that accurately summarizes the profoundest - perhaps the only - insight into learning which modern psychology has given us. Yet the theory of individual differences is probably the most universally violated learning principle in American education. As teachers we have glibly categorized the chasmic differences among cultural groups as differences in "cognitive styles." We do not know what that term actually means, nor have we done much about altering educational processes to accommodate it.

Until very recently, neurophysiology attributed analysis of sensory perceptions (cognition) to areas in the higher brain centers that receive all stimuli by way of long, direct neural pathways. We assumed that the higher brain centers processed all these impressions and that the brain itself was a single organ capable of specialization only by virtue of access to regions which were under singular control. We have now come to learn, not only that there are at least two apparatuses in the brain, each capable of cognitive processing independently, but that processing itself depends upon which of the three structural parts of the brain (archi, meso and neocortex) will mediate the impulses sent to it. There is a cell mass called the reticular activating system, which influences the ultimate processing of sensory input by higher brain centers. Research has identified these reticular pathways as related to autonomic control and especially to the processes of inhibition and excitation.

This insight makes the role of the reticular activating system in human behavior all-important. It contains the basis of conscious awareness, which permits the human being to react to his environment in his own specific way.[14]

This means that many times reactions to stimuli are mediated almost totally in the body, in the collagen system, the gelatinous tissue between the cells in which the reticular activating system is stored (Magoun confirms this by his discovery that if all sensory pathways are interrupted at midbrain level in an animal it still remains as wakeful as a normal animal[15]). At these times neurons are fired in the brain almost immediately after receipt of impressions in the body. At other times, impulses are delivered more slowly, detouring through the voluntary nervous system, picking up stored associations and conditionings developed by the repeated "emotional" reactions to former stimuli, before the impulse is relayed on to the cortex. These impressions we perceive predominantly by what we call "affect." Where the longest traverse of a stimulus is negotiated - through body sensation, feeling *and* intellect - learning occurs primarily through what we call "the head" - it is processed through mental associations, previous memory, ordinary logic and linear, sequential presentation. The important consideration in all this is that integration is the signet of the functioning of the system. For each experience, there is a more or less concerted cognitive address with all components participating. But each task demands a different, proportional arrangement. Feelings do not (or should not) dominate when logic is demanded, nor should thinking "take over" when the body needs to respond. At the same time, it is imperative to remember that recent brain research denies any credibility to the contention that one cognitive "style" is better or more useful than another. They are simply different.

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[14] Deutsch, F., Body, Mind and the Sensory Gateways. Basic Books, Inc., New York. 1962. p. 95.

[15] Magoun, H.W., "Brainstem Influences on Consciousness," Clinical Neurosurgery, Vol. III, Williams and Wilkins Co. 1957.

Cultural Factors. There are indeed, then, differences in "cognitive styles." Though all of us learn in a different way at different times, under different conditions, we each also have our *predominating* learning "style." This individual preference for one cognitive system over others is probably the result of heredity and environment, quite likely in about equal proportions. Most significantly, however, it seems to be associated strongly with cultural and (probably) sexual groupings. It is fairly evident from the exhaustive studies in many disciplines of the American Indian, that the characteristic ideational mode of the Red race would approximate the intuitive, appositional, non-linear way of knowing. The Indian seems to be a "body" person. Since the major geographical source of Chicano, Mexican-American and Western hemisphere Spanish-speaking peoples is in fact Indian (Aztec, Inca, Toltec and a number of earlier Andean cultures), we suspect that Hispanic-Americans are likewise more body than head oriented. The addition of a long intermediate religious influence from Spain and France, however, might have imposed a tendency to emotionality which dilutes the pure "body" characterization. In the case of Blacks, the characteristics which literature on the disadvantaged has examined (see below), together with such classic anthropological studies of Black peoples as those of Levi-Bruhl[16], Turnbull[17], and

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[16] Levy-Bruhl, L., *How Natives Think*. Washington Square, N.Y. 1966.

[17] Turnbull, C., *The Forest People*. Simon and Shuster. N.Y. 1971.

Frankfort[18] suggest Blacks also tend toward the body-feeling (intuitive, concrete, existential) cognitive mode. Here again, however, the long and sorry record of White contamination of Black culture makes classification difficult. Asians represent a special case, distinctions being required between Oriental, Tibetan-Mongolian, Oceanic and Hindustani (Western and Central Asia) peoples. In any case, it appears one may be permitted to generalize, in the sense that our society has overemphasized the propositional ideation (head) approach to education[19] and that, disproportionate failures by groups otherwise perfectly capable of scholastic achievement must reflect an absence of techniques, materials and practices which exploit the other "ways of knowing."

While a number of researchers have investigated some of the educational impications of these insights and assumptions, there is not yet a sufficient body of data to justify extensive applied studies in the field. Despite that, we have had, ever since the Coleman[20] and Jencks[21] Reports and the decade of the civil rights movement, a number of observers who have reasoned that differences in cultures bespeak differences in methods, strategies, and techniques, and have thus attempted to deduce, from empirical generalizations, the directions in which changes in learning environments for minority and disadvantaged students should proceed. Reissman concluded that the "culturally deprived" student's learning style is:

1. Physical and visual rather than oral
2. Content-centered rather than form-centered
3. Externally oriented rather than introspective
4. Problem-centered rather than abstract-centered
5. Inductive rather than deductive

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[18] Frankfort, H., op. cit.

[19] Bogen, J., op. cit.

[20] Coleman, J., et. al., Equality of Educational Opportunity, Washington, D.C. U.S. Government Printing Office. 1966.

[21] Jencks, C. Inequality. Harper and Row. New York. 1972.

6. Spatial rather than temporal

7. Slow, careful, persevering (in areas of importance) rather than quick, facile, flexible[22]

In another study, Berg and Axtell, in a state-wide canvass of programs for the disadvantaged in California schools, found that the following "traits" seemed to be related to the learning behavior of minority students:

1. Less concern with achievement resulting from parental demands for success.
2. Less concern for introspection and competition with one's self.
3. Capacity for close and loyal relationships.
4. Resourcefulness in coping with difficult life conditions.
5. Insight as a result of bicultural experiences.
6. Less abstract in thinking - emphasize content rather than form.
7. Inductive rather than deductive.
8. Limited tendency to generalize.
9. Tend to depend more on real life encounters than on symbolic experience in developing ideas.
10. Less motivated by symbolic rewards.
11. Goals tend to be immediate, self-centered and utilitarian.[23]

As can readily be seen, there is remarkable congruence between Reissman's and Berg-Axtell's assessment and a striking first-level adumbration of what effective approaches to different learning environments for minority students might be. The tendency to be motivated by real, rather than symbolic rewards, for instance (number 10 above) is strangely compatible with the microsociety approach used so effectively in some ghetto schools in New York[24] or the still-burgeoning trend toward work-experience, on-the-job and work-study programs in vocational education for minority students.

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[22] Reissman, F., The Culturally Deprived Child. Harper and Row. New York. 1962. p. 73.

[23] Berg, E., and D. Axtell. Programs for Disadvantaged in California. Peralta Community College District. 1968.

Our desire to conduct some preliminary research into this area derived from three main concerns:

1. Vocational education, since it was content- and problem-centered; less abstract than the rest of the school curriculum; externally as well as physically and visually oriented; and certainly spatial; seemed a natural curriculum focus to which substantial numbers of minority students would be attracted. They were not.
2. A great many educational innovations of the past decade -- language labs, videotape, flexible scheduling, micro-units of instruction, student participation in governance, and much else suggested that many of the findings of research such as we have summarized above might have precipitated an acceleration of implementation of such innovations as were especially related to the different learning styles of minorities. We wished to know if they had been, and if they were effective in attracting and retaining minority students.
3. We wished to know whether there existed any relationship between currently successful vocational education programs, and the techniques, organization and teaching styles suggested by the most recent findings with respect to different cognitive processes, and vice-versa: whether less successful programs were conspicuous for their exclusion of techniques, strategies and teaching styles derived from, or implied by, such research.

Summary. The problem is the proportionally small number of minority students who enroll in and successfully complete vocational education programs. On the basis of learning characteristics of minority students and the concrete, "real" nature of occupational training, one would expect that it would attract and retain substantial numbers of these pupils. Records indicate that this is not the case.

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[24] "The Microsociety," Newsweek, Vol. LXXIX, No. 24. June 12, 1972. p. 83.

Recent research into hemispheric lateralization of the brain and inquiries of neurophysiology as related to learning have implications which suggest a number of serious deficiencies in current approaches to education for all students and also projects some viable suggestions for change. The current study was mounted with the intention of identifying the extent to which methods, techniques and strategies of vocational education programs reflect these new insights and to establish if the presence or absence of certain strategies, methods or practices associated with these recent learning insights affect enrollment, retention and success of minority students in vocational education programs.

III. GOALS AND OBJECTIVES OF THE PROJECT

The objectives of the project were essentially four:

1. The first: to identify vocational education programs, particularly urban school programs, that are presently presumed to be meeting the special needs of specific groups of minority students.

2. The second: to identify within these successful programs instructional and motivational techniques and strategies that are, or have been, effective in attracting and retaining minority students in vocational training programs.

3. The third: to describe these successful methods, techniques, approaches, and strategies in complete enough detail so that they can be used by vocational teachers in other schools across the country.

4. The fourth: to recommend models of vocational education programs representing at least five different categories of vocational instruction (women's vocations, unionized crafts, business careers, semi-professional areas and new careers) which, in the judgment of the contractor, would attract and retain students from each of the following ethnic groups: American Indian, Black, Spanish-speaking, and Asian.

A secondary set of objectives constituted a subsidiary study:

1. To determine what elements in vocational education programs, especially in the instructional setting, are

perceived to be the causes of minority students' resistance to enrolling and persisting in such programs.

2. To determine what elements in vocational education programs, especially in the *instructional setting*, are perceived to be acceptable and attractive to minority students.

3. To derive some practical and useful inferences concerning the particular elements most often associated with "less successful" and "more successful" programs identified in the study.

The "elements" studied were characteristics, methods, conditions, techniques, strategies, organizational arrangements, etc., which seemed to be logical extrapolations (i.e., implementations) of knowledge verified, indicated, suggested, hinted or otherwise implied by the latest research findings on learning styles and learning characteristics of minority students. The tacit assumption was that most minority students would relate positively to an environment which included palpable recognition of the special characteristics of minority students and to a predominantly non-linear teaching style suggested as typical of minority cultures.

Six functional areas of school operations were studied, with an emphasis in the exploration on elements within each area which exemplified an implementation of, or capitalization upon, techniques, methods and practices suggested by these two fronts of contemporary research.

This emphasis is reflected in the instruments used in the survey, in observations conducted at individual school sites and in other related methodological concerns. It is described in appropriate sections which follow.

IV. PROJECT DESIGN AND PROCEDURES

A. Project Design

The contract for which this report represents a final summary was awarded on July 1, 1974. It was one of eleven which the Division of Research within the Bureau of Occupational and Adult Education funded in FY74 under Section 131(a) of PL 90-576, Part C. It sought to identify techniques, methods and approaches in vocational education which are successful in meeting the particular needs of minority students. The focus of the methodology was a canvass of the school districts serving the major metropolitan areas of the country. Vocational education courses (or programs) in five categories -- new careers; semi-professional; traditional women's occupations; union crafts areas; and business careers -- with sizeable minority enrollments were to be identified, and those with high and low attrition rates isolated and questionnaires mailed to samples of teachers and students. The objective was to determine the factors in a number of areas (instruction, supportive services, etc.) which were associated with "more successful" and "less successful" programs. It was the hope, after analysis of the data received, that models of vocational programs could be constructed within the five categories of programs previously mentioned, for four discrete ethnic groups: American Indian, Blacks, Hispanic and Asian-American.

Execution of the contract was organized to take place in six (6) phases; some of them overlapping:

1. Planning and Conceptualization (2 months) -- in which the research design was to be finalized; an advisory committee selected; and the universe of programs from which the ultimate sample would be selected was to be defined.

2. Review and Analysis (2 months) -- in which contact with the literature, agencies, school districts and other sources of information was to be established; instruments for data collection would be constructed; approval of instruments by the Project Officer and OMB, if necessary, was to be obtained; and a field test of instruments completed.

3. Data Collection and Collation (6 months) -- in which travel itineraries for site visits were developed; a format for profiles of programs to aggregate data from questionnaires was developed; and mailing of questionnaires was completed.

4. Field Survey (3 months) -- in which site visits were made and teachers, staff and students interviewed.

5. Models Development (1 month) -- in which analysis was made to extract modular elements associated with successful vocational education programs for minority students.

6. Writing and Review -- in which a preliminary final report, to be submitted to the advisory committee and Project Officer for review was written and submitted as a comprehensive final report on all project activities.

The performance schedule projected fifteen major tasks to be completed in the project:

1. Refinement of the Survey Design and Detailing of the Statement of Work.
2. Selection of an Advisory Committee
3. Selection of Sample Programs
4. Review of the Literature
5. Instrument Construction
6. OMB and Project Officer Approval of Instruments
7. Field Test of Instruments
8. Mailing of Course Profile Forms
9. Mailing of Questionnaires to Students and Teachers
10. Development of Profiles and Frequency Summaries for Responding Sites and Classes

11. Selection of Sites for Visits, Schedule Visitations and Develop Site Visit Observation Check-List

12. Visitation of Sites

13. Processing and Analysis of All Data

14. Development of Models of Successful Programs

15. Writing and Submission of the Final Report

Each of these major task areas is described in greater detail below.

B. Procedures Followed

Phase I of the original proposal was designated as the Planning Phase, with the major objective of setting the stage for an effective study. To that end, the following tasks were completed in Phase I:

TASK 1 -- REFINEMENT OF THE WORK PLAN

At the time of negotiation (May 15-20) of the contract, the funds available for execution of the statement of work were reduced by one-third from the initially requested total. The reduction, principally in personnel (the research associate position was deleted and consultant service was reduced to ten days) and in travel (reduced by almost half), necessitated a reduction in the responsibility of the advisory committee and as well in a reduced consideration of rural vocational education programs in the survey.

An abstract of these changes was submitted to the Project Officer on May 21, 1974, and a detailed revised work plan was submitted on July 16, 1974.

The principal changes in the statement of work as outlined in the July 16 revision were:

a. The emphasis on urban programs. The project was altered to focus on the high school vocational education programs in the districts serving the fifty largest cities in the U.S. In addition, ten community college programs and approximately fifteen exemplary manpower programs were to be included. All references to rural programs were deleted.

b. Reduction in the responsibility of the advisory committee. The advisory committee, originally to be composed of nominees supplied by the contractor and cognizant representatives of the Bureau of Occupational and Adult Education, was to meet bi-monthly. With the severe reduction in consultant, travel and per diem monies, the composition of the advisory committee was changed to include only nominees of the contractor, and its function re-ordered to review of instruments and reports.

c. Emphasis on elements within the instructional setting. Where the original proposal focused on a number of categories of elements which were thought to be influential in determining success or failure of voc-ed programs for minorities -- community relations, placement services, recruitment, promotion, planning, etc. -- the revision of July 16 sought to narrow the domain of influences to one over which the vocational teacher and/or the school site had some appreciable control -- the classroom and instructional setting. Teacher characteristics, materials, equipment, scheduling and such other items were within the immediate jurisdiction of the teacher were highlighted, and a commensurate attenuation of other categories was made.

d. Strengthening of the methodology which compared "more successful" and "less successful" programs. The emphasis in the original proposal was on "successful" factors. The objectives, and to some extent the methodology, was revised on July 16 to accommodate an identification of elements which were "perceived by ethnic minority students to be causes of resistance to enrolling and persisting" in voc-ed programs. The revision sought to take greater notice of factors associated with unsuccessful programs. Moreover, the measures of success were reduced to a single criterion: persistence, or holding power of the course.

e. Further refinement of the scope of work. The revised scope of work as submitted on July 16 was considered by the Project Officer and knowledgeable staff in the Research Division Office. It was their judgment that the emphasis on successful (exemplary) programs was too duplicative of survey efforts which had been undertaken by another California contractor for the Department of Education in that state. Additionally, the Division recommended that the emphasis on instructional elements be broadened. Accordingly, a second revision of the statement of work was completed after a visit to Washington, D.C. by the Project Director and submitted on August 27, 1974.

The salient changes in the second revision were:

a. The focus, in methodology and analysis, on "more successful" and "less successful" programs. The instruments and data collection exercises in the contract were altered to permit, on the basis of a single criterion, attrition rate, the separation of all programs canvassed into "high" and "low" bands, these strata to be determined by a sorting of those programs which fell one-half standard deviation above and one-half standard deviation below the mean for all programs surveyed. It also developed that the "high" and "low" categories would be the programs from which samples for visitation, comparison and analysis of factors associated with success would be selected.

b. The expansion of categories of elements from a single protocol -- instruction -- to six (6) functional categories. While the original proposal sought to associate a broad range of factors with success in meeting the needs of minority students, this range was included in a single category -- factors in the instructional (classroom) setting deemed to be within the control of the teacher and/or site administrators. The second revision broadened and distributed all factors into six (6) functional areas:

   1. Teacher Characteristics
   2. Teaching Techniques
   3. School Environment
   4. Supportative Services
   5. Participation of Parents and Community
   6. Organizational Format

The revised work plan submitted on August 27 was accepted and approved.

TASK 2 -- SELECTION OF ADVISORY COMMITTEE

Task 2 became essentially a responsibility to nominate and select persons to serve on a document review panel to the study. The reduction of travel and consultant money at the beginning of the survey decreed that the contractor select a minimum number of knowledgeable vocational education experts who would be representative of the ethnicity and educational levels of the populations to be surveyed, and that they be in fairly close proximity to the contractor.

To that end, five individuals were nominated as the continuing, permanent advisory committee members and five others, selected on the same basis as the continuing complement, agreed to serve as alternates. The continuing membership was composed of the following:

1. Marcus Contreras, Program Director,
   East Bay Skills Center, Oakland, California

2. Ernest Jones, Deputy Superintendent,
   St. Louis Public Schools, St. Louis, Missouri

3. Mich Kunitani, Public Education Representative,
   California State Department of Employment Development,
   Berkeley, California

4. Jack Michie, Dean of Vocational Education,
   Long Beach City College, Long Beach, California

5. Ralph Davis, Acting Dean of Instruction,
   Navajo Community College, Tsaile, Arizona

The alternate membership was comprised of the following:

1. Clifford Frazier, Director,
   Community Film Workshop Council, New York City, New York

2. Marshall Rogers, President
   Los Angeles County Native American Empolyees
   Association, Los Angeles, California

3. Hubert Molina, Spanish-American Education Specialist,
   Southwest Regional Education Laboratory, Seal Beach,
   California

4. Neil V. Sullivan, Professor
   School of Education, Long Beach State University,
   Long Beach, California

5. William Moore, Professor
   Department of Education
   Ohio State University, Columbus, Ohio

The drafts of the questionnaires and profile sheets were submitted to each of the permanent advisory committe members for their review. Significant corrections by two of the members resulted in changes in wording of a number of items on both the teacher and student questionnaires.

TASK 3 -- SELECTION OF SAMPLE PROGRAMS

By design in the work plan, a final sample of thirty-five vocational education programs, from urban high school or K-12 school districts; from urban community colleges with vocational programs and from exemplary adult manpower training programs, was to be selected after completion of a number of methodological exercises. One set of such exercises represented a series of contacts with the districts serving the largest cities of the U.S.

State Departments of Education. Beginning on July 11, the first of one set of exercises was initiated. A letter was sent to the director of voc-ed in the state department of education of each of the fifty states. These representatives of state systems were asked to identify any vocational education programs at any level which had experienced particular success serving minority clients. The yield was relatively productive, with notable contributions from the states of Florida, New Mexico, Michigan, Colorado, New York, Texas, Wisconsin, Ohio, and Pennsylvania. Each of these states indicated programs they considered exemplary and supplied names and contact personnel at each of the sites where programs were being conducted.

The exercise thus inaugurated disclosed a basic complication in the process of pin-pointing particular programs and particular cognizant personnel who could serve as contact representatives. While the persons at the state level could nominate programs, it developed that a second contact, with the program itself, was necessary to establish whether the contractor could count on the program's participation and/or inclusion in the study. In every case, these second contacts eventuated in a third; the program was always under the jurisdiction of a city school district: approval for participation was prerogative of the superintendent. As a result, a second canvass was initiated, an invitation to superintendents of the high school districts serving the larges cities of the U.S.

Superintendents of the Largest U.S. School Districts. On September 16, a letter was sent to the superintendents serving the sixty-six largest school districts in the U.S., inviting them to participate in the study, and asking them to name a contact person to act for the district in collecting information. Thirty-one of the districts responded in the affirmative; those which declined, in almost all cases pleaded that the number of studies already being conducted in their schools represented an exhausting burden. In some few cases, the districts were skeptical of the availability of classes of data required by the study -- census and drop-out data by ethnic/racial groupings. Again, the contacts with superintendents invariably produced a second required contact, with a person named by the superintendent to act as a liaison, usually an assistant superintendent or a supervisor of vocational education, and this in turn, a third contact, with the principal of the particular school, who often required a fourth contact, with a counselor or voc-ed coordinator before we could approach teachers and students. Other details, particular to the modus operandi of certain districts, served to complicate and lengthen the process of isolating programs for study. For one thing, many districts have prescribed routines for approving requests for research in their schools. This procedure in some cases is quite cumbersome. Indianapolis, for instance, requires the completion of a lengthy form to be submitted to a research committee, complete with instruments, sampling procedures, etc. The lead-time for receipt of approval is considerable.

Other complications arose from parallel studies being conducted in the districts contacted: Detroit, Michigan and Portland, Oregon had just completed extensive voc-ed research in their schools and were reluctant to impose on staff and students again. Both these districts graciously consented to share results of their studies with us.

One final development, the important effects of which did not become fully known until some months later, occurred in the case of the Orange County Schools in Orlando, Florida. Orlando wished to participate in the survey, but requested clarification of the Family Educational Rights and Privacy Act of 1974 with respect to release of student information. We made a quick telephone survey of three large districts in the San Francisco Bay Area to determine how other districts were interpreting the Act. We were told that release of student names and addresses without parental permission constituted "no problem." The Act was interpreted to prevent the release of evaluative information -- test scores, disciplinary referrals, etc. Statistical information -- addresses, names, enrollment, drop-out, etc. was held to be public knowledge. We thus notified our Project Officer of the potentialities in this contingency, but felt that the study would proceed without serious interference from any adverse consequences resulting from implementation of the Federal statute.

On December 5, immediately after receipt of notice from the Project Officer that OMB clearance of our study instruments would not be required, a kit was sent to each of thirty-one districts who had by that time signified willingness to participate. Included in the kit were:

1. a synopsis of the purposes, methodology and work plan of the study,

2. a specimen of the course profile sheet,

3. a cover letter explaining general information about the survey.

The kits were forwarded to those persons designated as contacts by superintendents. The items included in the kit are exhibits in Appendix A of this report.

Other Cities and Programs. Since the first mailing of invitations to participate did not yield a sufficient sample of programs, a second mailing of an invitation was made to thirty-three smaller cities, including a number who had not responded to the initial offer, directed again to the superintendents. In addition, invitations were sent to thirty-one selected community colleges serving urban areas near the high school districts already confirmed as participating.

Finally, mailings were made December 2 to thirty-four special programs which had been recommended earlier to us by consultants, universities and state departments of education as exemplary minority programs.

On December 31, 1974, there were fifty (50) programs, in as many cities, which had confirmed acceptance of the invitation to participate. From January 1 on, however, there began a gradual erosion of the number of participating programs. Chicago, Los Angeles and Buffalo withdrew outright on the basis of restrictions imposed by the Educational Rights and Privacy Act, which had become effective November 19, 1974. Pittsburgh advised us that the Act and district regulations prevented disclosure of student names and addresses, but indicated that a personal meeting with parents to explain the questionnaire might produce approval. That offer came too late (Mid-May) for realistic acceptance. Others -- Gary, Indiana, Denver, Colorado; Navajo Community College, Arizona; Toledo; Ohio; Long Beach, California -- either could not release students' names to us as a matter of policy or did not have adequate records to identify students in the categories or classifications required. Louisville, Kentucky became involved in a unification-desegregation issue which produced problems that obliged that district to withdraw. Indianapolis and Minneapolis, after processing our formal applications to conduct the research in their schools reluctantly disapproved the request. A reorganization of districts in Jersey City, New Jersey created a record problem which forced the North Bergen jurisdiction to withdraw. As of March 21, thirty-eight programs still remained in the study, but of these, only thirty-one had returned Course Profile Forms, and four of that number had not submitted lists of student names and addresses.

These are the thirty-one districts which had returned Course Profile Forms as of March 21, 1975:

1. Atlanta, Georgia
2. Bakersfield, California
3. Brigham City, Utah
   (Intermountain School)
4. Browning, Montana
5. Charleston, South Carolina
6. Charlotte, North Carolina
7. Cincinnati, Ohio
8. Cleveland, Ohio
9. Denver, Colorado
10. Des Moines, Iowa
11. Ft. Lauderdale, Florida
12. Fresno, California
13. Hartford, Connecticut
14. Kansas City, Missouri
    (Penn State Community
    College)
15. Las Cruces, New Mexico
16. Long Beach, California
    (Long Beach Community
    College)
17. Minneapolis, Minnesota
18. Milwaukee, Wisconsin
19. Norfolk, Virginia
20. Oakland, California
21. Orlando, Florida
22. Phoenix, Arizona
23. Pittsburgh, Pennsylvania
24. Rochester, New York
25. Rock Springs, Wyoming
    (Western Wyoming Community
    College)
26. San Jose, California
27. St. Louis, Missouri
28. St. Paul, Minnesota
29. Seattle, Washington
30. Wichita, Kansas
31. Yonkers, New York

Long Beach Community College had submitted an aggregate enrollment summary for vocational classes which was not usable in that form. On March 21, we sent letters to the remaining districts who had confirmed a desire to participate and who had not forwarded Profile Summary Forms. These were the participating districts who had not yet responded at that time:

1. Baton Rouge, Louisiana
2. Cheyenne, Wyoming

(Cont'd)

3. Gary, Indiana
4. Harrisburg, Pennsylvania
5. Knoxville, Tennessee
6. Louisville, Kentucky
7. New Orleans, Louisiana
8. North Bergen, New Jersey
9. Philadelphia, Pennsylvania
10. Providence, Rhode Island
11. Riverside, California
    (Riverside City College)
12. San Diego, California
    (San Diego Community College)
13. Shell Lake, Wisconsin
    (Indianhead District)
14. Sioux City, Iowa
15. Tampa, Florida
16. Toledo, Ohio
17. Tsaile, Arizona
    (Navajo Community College)
18. Tulsa, Oklahoma
    (Tulsa County)

The Project Director, on August 21-23, traveled to Washington, D.C., and met with specialists in disadvantaged education to identify in their files exemplary programs. Ms. Barbara Kemp, State Programs and Service Branch, Ms. Velma Brawner, Specialist in the Research Branch, Messrs. Duis and Kavtracek in the Research Division, Ms. Glee Saunders, Voc-Tech Specialist, were all contacted and gave their assistance. In most instances, they had little data on current programs which fit the description of the exemplars for which we were searching, but referred us in turn to other sources. Two of these, the National Center for Educational Statistics (Mr. Leo Eiden) and the Office of Youth Development (Dr. Robert Foster) were followed up by mail, but their search failed to produce "any knowledge of data" in our area of concern.

Earlier contacts with USOE through Ms. Orieanna Syphax, Senior Adviser, Office of Educational Planning, BOAE, and later references provided through Mr. Joel H. Magisos, Associate Director, Information and Field Services (Bibliography Series 21 to 25) from the Center for Vocational Education, Ohio State University, proved of limited value.

The final judgment on sources especially devoted to our area of concern was that little, if any, direct research effort had been previously expended on the precise factors of interest in the present study.

A related study undertaken by a California firm for the State Department of Education in Sacramento also offered no appreciable assistance: the final report was principally a process formulation for voc-ed (minority) programs in a restricted number of dimensions approximating the twelve functions of vocational education which are part of a systems approach used in the state plans in California. No relationships are drawn between successful and unsuccessful program processes: the assessments are basically case studies of different successful approaches, and modeling is not developed. One feature of this recent study has important implications for the present effort, however. The study was unable to isolate any vocational education programs which attract a high proportion of Asian-American or Oriental students. This agreed with our own experience. We had thought that Hawaii, New York and California would provide programs in which Asians were prominent in the enrollment, but large cities in all 3 of these states indicated that they could not participate in our study. Indeed, as the study developed, we found we could not identify any specimen programs for Asian-Americans elsewhere, nor did we find Asians in any but microscopic proportions in the enrollments of the classes we finally included from 28 cities.

As a concluding exercise in a search for exemplary programs, the Project Director attended the Conference on Vocational Education Research at the Twin Bridges Marriott Hotel on November 3-5. While all of the grantees attended, and many fruitful contacts and discussions ensued during the conference, little substantive information directly relating to our study was obtained.

The contractor was also in continual contact during the contract year with Dr. Edgar Parsons and Mr. Jim Hughes of Systems Sciences, Inc., Chapel Hill, North Carolina, who had a contract in the same priority area and with whom we have shared information. Again, the usefulness of the information exchanged was limited, since the focus of the SSI study was only superficially congruent with our own.

TASK 5 -- INSTRUMENT CONSTRUCTION

There were three basic instruments used for collection of data in the project:

1. Course Profile Summary -- on which contract persons in school districts indicated programs (or courses) which had substantial minority enrollment in five subject categories -- new careers, pre-professional, business, union crafts and traditionally women's occupations -- and also the beginning and ending enrollments for minority students for the most recently available period. Wording on the profile summary was such as to permit completion by high schools and community colleges as well as adult programs.

2. Teacher Questionnaire -- completed by teachers of the courses named on the Course Profile Summary Forms.

3. Student Questionnaire -- completed by dropped students in "more successful" and "less successful" programs.

Before construction of the instruments, a letter canvass was made (on August 28) of fourteen city school districts and community colleges to ascertain "the most effective means" by which districts could identify programs of interest to us, and could judge the accessibility of "records, reports or other sources of information which would yield racial/ethnic census and course completion data on individual courses or programs." The following districts were canvassed:

1. Atlanta, Georgia
2. Birmingham, Alabama
3. Boston, Massachusetts
4. Chicago, Illinois
5. Cincinnati, Ohio
6. Compton, California (Compton College District)
7. El Paso, Texas
8. Honolulu, Hawaii
9. Nashville, Tennessee
10. New York, New York
11. Oakland, California (Peralta Community College District)
12. Phoenix, Arizona
13. Portland, Oregon
14. St. Louis, Missouri

Responses were received from six of the districts. They ranged from an expression of inability to provide the data in categories requested -- Honolulu -- through a disinclination to participate at all -- Portland -- to the provision of actual data -- St. Louis. One respondent -- Nashville -- referred us to the Research Coordinating Unit for the State of Tennessee, indicating that the RCU kept all census data for the major cities and could provide it to us for a fee. Specific insights for construction of data collection instruments were unfortunately of mixed value.

Several iterations of the instruments were produced and tentative final versions submitted to the Project Officer on September 17. Minor changes were made by the BOAE Division and conveyed to us by telephone on October 31.

On November 18, copies of all three instruments were mailed to the five members of the advisory committee for their review and correction. Suggestions for changes in wording of items or deletion/inclusion of additional items and other comments were received from three of the members. The instruments appear as exhibits in Appendix B.

TASK 6 -- AGENCY (OMB) APPROVAL OF INSTRUMENTS

On October 15, 1974, two copies of a five-page synopsis of the methodology of the study, designated "Detail to Accompany Request for Approval of Survey Instruments by Office of Management and Budget (OMB)," was forwarded to the Project Officer, Mr. Mario George, for his use in securing such approval if it developed that it was necessary.

As of November 18, one month later, we had received no official word as to the necessity of OMB approval and forwarded a letter to that effect to the Project Officer.

On November 27, the Project Officer telephoned to inform us that the decision had been made that since "the nature and purposes of (our) instruments and the Vocational Education Research (VER) grant program provide the basis for a rationale that Federal requirements to be met for development and utilization of survey instruments by contractors (profit-making agencies) in VER activities should be the same as those to be met by grantees (non-profit making agencies)," we did not need OMB approval.

Subsequently, on December 2, 1974, we received written confirmation of this intelligence from Mr. George.

TASK 7 -- FIELD TEST OF INSTRUMENTS

Early in October, contact was made with Mr. William Fortman, Coordinator of Vocational Education, Oakland, CA Public Schools, for possible field-testing of the instruments with Oakland high school vocational instructors and selected drop-outs from the 1973-74 school year.

Mr. Fortman obtained approval of the Oakland Schools' Research Department, canvassed his instructors and asked for volunteers. All were supplied with a synopsis of the methodology of the study, copies of the instruments and other general information about the project.

On December 12, Mr. Fortman provided us with the names and addresses of seven vocational teachers, one each from a like number of different high schools, and the names and addresses of sixteen students who had dropped the course taught by that instructor the preceding school term. Fourteen of the twenty-three questionnaires, seven from teachers and seven from students, were returned completed.

Two of the dropped students' addresses proved to be unusable. Constructive suggestions, but no adverse comments, were received from all of the respondents; all indicated they had no difficulty completing the instruments easily and rapidly.

Teachers participating in the field-test were paid an honorarium of ten (10) dollars for completing the questionnaire. Students, who had a shorter instrument to complete, were paid five (5) dollars each.

TASK 8 -- MAILING OF COURSE PROFILE FORMS

Beginning January 15 as per schedule, Profile Summaries were mailed to the approximately fifty (50) programs who at that time had signified intentions to participate. By March 15 -- and it took that long to obtain some responses -- only thirty-one districts had returned the form. As described earlier, at least one of the profile summaries could not be used, others did not have courses to fit all categories; some provided only names and addresses of teachers, indicating Federal or local legislation prohibited release of student information; and some did not provide either teacher or student names and addresses. A re-mailing of a request for the Course Profile Summary Form to those districts who had not replied, including those where we needed better information, was made on March 21. We waited until April 15 for responses. By that time only one (1) additional profile was received, and also, disappointingly, notices from at least a half-dozen other districts that circumstances now prevented them from taking part or that extraction of data was proving exceedingly difficult. Since the selection of a sample for site visitation was dependent upon the drop-out rates in classes reported on the Course Profile Summary, we were obliged to wait until at least most of the fifty-odd returns were in before developing itineraries for site visits. As it developed, thirty-one programs proved to be the final number which we could include in the study. A third follow-up of cities which failed to follow through on intentions to participate revealed a basic inability to complete the exercises necessary, due to: (1) the implied or actual restrictions imposed by the Educational Rights and Privacy Act; (2) the inability of school record systems to identify racial/ethnic enrollments in individual classes and in drop-out counts; (3) the fundamental inability of school districts to accommodate formal research inquiries; and (4) a substantial and genuine wish to cooperate in external evaluations, but a deep structural indifference to the urgency of deadlines, statistical purity or accuracy required to conduct such research. These comments are amplified in a later section of the report.

TASK 9 -- MAILING OF QUESTIONNAIRES TO TEACHERS AND STUDENTS

Mailings of questionnaires to students and to teachers was begun April 1.

Two hundred and sixty-eight (268) names and addresses of dropped students were provided us on the Course Profile Summary sheets; and one hundred and twenty-one (121) names of teachers. There were fifteen (15) classes represented which had no drop-out for the period reported (and consequently, no student names), and eleven (11) programs which gave teacher names, but no student names and addresses. For the classes which had no drop-out and for those programs which could not supply names and addresses of drop-outs, we revised verb tenses in the questionnaire to accommodate currently enrolled students in the classes for which we had data, and requested that teachers distribute these to a selected sample of minority students in their classes, thus obviating the need of obtaining their names and addresses. We mailed two hundred twenty-five (225) questionnaires for such distribution to current students, bringing to four hundred ninety-three (493) the total mailings to students. (This is roughly 50% of the maximum student mailing we had anticipated; the six hundred fourteen (614) total is roughly 50% of the maximum total of teacher and student questionnaires (1,250) we had expected to mail).

TASK 10 -- DEVELOPMENT OF PROFILES AND FREQUENCY SUMMARIES FOR RESPONDING SITES AND CLASSES

The original design called for the separation of reporting classes into protocols of high, low and intermediate drop-out rate, the margins of each to be determined by calculating the programs falling one-half standard deviation above and below the mean rate. The fact that the mean drop-out rate for classes reporting was so low (12%), a band described by a standard deviation would have eliminated all but the fourteen no-drop-out classes (0%) at the low end of the range. Eight of these fourteen low-range classes were in programs at just three sites and the fourteen included but one Indian class and no Spanish-speaking students at all. Moreover, the fifteen classes which would have been isolated at the high end of the range would have contained no Indian students and a disproportionate number of Spanish-speaking students. In view of the few classes and scant ethnic spread generated by such a stratification, as well as by the paucity of numbers of students responding through all of the 97 classes represented, the decision was made to effect a single division into high-low categories. A 15% drop rate was selected as the division-line. This cut yielded forty-two classes with a higher drop-rate than 15% and fifty-five with a lower rate, and gave a better representation of minority groups, types of classes and geographical locations in each category.

Termination in a class for any reason was considered the definition of a drop-out for purposes of the study. Districts selected dropped-student totals for the 1973-74 school year. The frequency count of classes by percentage of drop-out, course title, and predominant ethnic group is displayed in the following table:

Table 1. Frequency Count -- Vocational Classes by Percent of Drop-Out, Course Title and Predominant Ethnic Group

%	Course Title	Predominant Ethnic Group
0	Fire Science	Black
0	Office Education	Black
0	Drafting	Black
0	Brick Masonry	Black
0	Cosmetology	Black
0	Secretarial	Black
0	Child Care	Black
0	Cooperative Vocational Education	Indian
0	Welding	Indian
0	Fashion Merchandising	Black
0	Computer Technology	Black
0	Cooperative Office	Black
0	Health Services	Black
0	Cabinet Making	Black
1	Sheet Metal	Spanish
1	Child Care	Black
1	Secretarial	Black
2	Medical Office Skills	Spanish

Table 1. Frequency Count -- Vocational Classes by Percent of Drop-Out, Course Title and Predominant Ethnic Group (Cont)

%	Course Title	Predominant Ethnic Group
3	Business-Steno	Black
4	Nursing Assistant	Spanish
4	Child Care	Spanish
5	Practical Nursing	Black
5.5	Cooperative Vocational Education	Indian
6	Clerical	Black
7	Child Care	Black
7	Cooperative Vocational Education	Indian
8	Auto	Black
8	Data Processing	Black
8	Clerical Office	Black
8	Dental Assistant	Black
8.5	Food Service	Black
9	Auto	Black
9	Cosmetology	Black
10	Food Service	Black
10	Health Occupation	Black
10	Auto Body	Spanish
10	Secretarial	Black
10	Data Processing	Black
10	Practical Nursing	Spanish
10	Secretarial	Black
11	Electronics	Spanish
11.1	Offset Printing	Black
12	Clothing Management	Black
12	Welding	Black

Table 1. Frequency Count -- Vocational Classes by Percent of Drop-Out, Course Title and Predominant Ethnic Group (Cont)

%	Course Title	Predominant Ethnic Group
12	Building Construction	Black
12	Auto	Black
13	Auto	Black
13	Banking and Finance	Spanish
14	Data Processing	Black, Spanish, Indian
14	Trowel Trades	Black
14	Drafting	Indian
15	Bookkeeping	Black
15	Business	Indian
15	Business Cooperative	Indian
15	Cosmetology	Black
16	Auto	Indian
16	Nursing Aide	Indian
17	Office Services	Black
17	Small Engines	Indian
18	Police Science	Spanish
18	Allied Health	Spanish, Black
19	Office Machines	Black
20	Vocational Clerical Training	Black
20	Cosmetology	Black
20	Restaurant and Cooking	Black
20	Welding	Black
20	Industrial Cooperative Education	Black
20	Secretarial	Black
20	Health Occupations	Black
21	Health Occupations	Black

Table 1. Frequency Count -- Vocational Classes by Percent of Drop-Out, Course Title and Predominant Ethnic Group (Cont)

%	Course Title	Predominant Ethnic Group
21	Carpentry	Black, Spanish, Indian
25	Office Education	Black
25	Key Punch	Black
25	Nurse's Aide	Spanish
25	Nurse's Aide	Black
25	Cooperative Vocational Education	Indian
25	Construction	Black
25	Electrical	Black
25	Water Utilities	Spanish
25	Nursing	Black
25	Fashion	Black
25	Cashiring for Sales People	Black
28	Clerical	Black
29.4	Office Services	Black
30	Auto Refinishing	Spanish
30	Cosmetology	Black
30	Body and Fender	Spanish
33.3	Carpentry	Spanish
40	Cosmetology	Black
50	Licensed Practical Nursing	Black
50	Machine Shop	Black
55	Practical Nursing	Black, Spanish, Indian
60	Secretarial	Spanish
67	Drafting	Black
71	Auto	Black
82	Child Care	Black

Description of the Student Population. Table 2 (next page) shows the preponderant minority group represented in the respondent population is Black (61-1/2%). It was also the only group with substantial representation in terms of numbers (126 students). There were only 4 Oriental students in the sample, but these are retained in the tables, since, coming from three widely scattered regions and displaying a consistent trend at dramatic variance with other minority group responses, they give some credibility to the differences in cognitive styles which we advanced for Asians vis à vis other minorities in Section III.

The classes reporting were from seven (7) area vocational programs; two (2) community colleges; four (4) technical or career centers; two (2) area technical institutes; two (2) vocational high schools; one (1) Opportunities Industrial Center (OIC) and one (1) county occupational program operated by a university (New Mexico). All other classes operated in comprehensive high schools.

Course Profile Summaries gave participating districts the opportunity to select one class from each of five types:

Type 1	Union Craft Area (Auto, Machine Shop, Carpentry, etc.)
Type 2	Service Occupations Previously Regarded as Attracting Predominantly or Exclusively Female Enrollments (Cosmetology, Nursing, Fashion Arts, Medical/Dental Assisting, etc.)
Type 3	New Careers (Teacher Aides, Media Specialists, Community Workers, Public Service Aides, etc.)
Type 4	Semi-Professional Training (Metallurgy, Engineering Technology, Drafting, Computer Technology, etc.)
Type 5	Business Vocations (Secretarial, Sales, Accounting, Distributive Education, etc.)

Of the students responding, 82% were from minority group backgrounds. Fifty-nine (59) students were enrolled in Type 1 classes; thirty-nine (39) in Type 2; twenty-nine (29) in Type 3; eighteen (18) in Type 4; and sixty (60) in Type 5 classes.

The proportion of minority-to-white students in the reporting classes ranged from slightly below 10% to many classes with 100% minority enrollment. Eighteen (18) districts were canvassed as predominantly black; four (4) as predominantly Spanish-speaking; four as heavily Indian-enrolled; the remaining others were canvassed as mixed populations.

Table 2. Characteristics of Student Respondents

Characteristics	Total	Current	Drops	High Drop Class	Low Drop Class	Class Type				
						1	2	3	4	5
Total	205	129	76	85	120	59	39	29	18	60
Male	71	49	22	25	46	53	1	3	12	2
Female	134	80	54	60	74	6	38	26	6	58
Indian	20	17	3	12	8	8	1	7		4
Black	126	69	57	43	83	32	25	17	9	43
Oriental	4	2	2	1	3	2			1	1
Spanish	17	7	10	14	3	8		1	2	6
White	37	34	3	14	23	9	12	4	6	6
Other	1		1	1			1			
Age:										
16 or under	37	24	13	6	31	7	10	1	7	12
17 - 19	134	70	64	56	78	40	24	22	7	41
20 or older	26	20	6	16	10	10	4	4	4	4

Level of Classes. By far the greatest number of courses reporting contained 11th and 12th grade students: 74%. Only six classes contained 9th graders (6%); twenty-two (23%) included 10th graders; and twenty-two were 13th, 14th grades and/or adult level only.

Union Strength of Cities Reporting. In the course of site visits, a suggestion arose concerning the influence of union involvement in the cities where vocational programs were being observed. It seemed that strong union activity in the surrounding area was related to the success of programs in schools. While no attempt was made to gauge the degree or nature of union cooperation in school programs (e.g., through advisory committees), a retrospective analysis prompted the inclusion of a coding by "weak" or "strong" union characteristics for each site in the machine processing of the responses. The Institute of Industrial Relations at the University of California, Berkeley was asked to confirm ratings of the thirty-one cities for which data was available, made by the three staff persons who visited sites. At the same time, the Department of Labor, Office of Contract Compliance, San Francisco, supplied a listing by percentages of union membership for all states (for 1972), for employees in non-agricultural establishments. These exertions resulted in an ability to "type" the cities in the study in a way in which was over 90% congruent across the sources of judgment. Only two cities failed of a unanimous placement among five raters: Bakersfield and Ft. Lauderdale. They were ultimately listed as shown in the complete tabulation which appears as Table 3 below.

Table 3. Ratings of Participating Cities by Strength of Organized Labor

		STRONG	
Hartford	Denver	Seattle	Rochester
St. Louis	Yonkers	Oakland	San Jose
St. Paul	Milwaukee	Des Moines	Cincinnati
Kansas City	Pittsburg	Cleveland	Ft. Lauderdale
		WEAK	
Browning	Fresno	Las Cruces	Memphis
Orlando	Rock Springs	Wichita	Bakersfield
Charlotte	Brigham City	Phoenix	Norfolk
Charleston	Atlanta	Memphis	

TASK 11 -- SELECTION OF SITES FOR VISITS

Of the thirty-one sites available for study, the ten programs whose courses were represented in the highest drop-rate category and the ten represented by courses in the lowest drop-rate classification were selected. There were six programs which had individual courses which fell into both categories, which permitted additional selection on other criteria. Two Indian programs and two programs with substantial Spanish-speaking enrollment were selected in the twenty to be visited; and the two single programs with the greatest number of low drop-out and high drop-out courses, respectively, were chosen to make a total of twenty.

TASK 12 -- VISITATION OF SITES

Between May 1 and June 10, nineteen of the sites scheduled for contact were visited, each by a single staff member of the contractor's firm, for one or two days each. One site close to the contractor's headquarters was visited after June 30.

Staff who visited the sites used a Site Observation Check-List as a report of the visit. (See Appendix B). Each class and each installation which was reported on Course Profiles was visited and the teacher interviewed. Additionally, coordinators, supervisors and central office personnel, one of whom usually accompanied the observer, were interviewed, and discussions were held with random numbers of students, community representatives and/or counselors at or near the school site.

The sites visited were:

Atlanta, Georgia
Charleston, South Carolina
Charlotte, North Carolina
Orlando, Florida
Ft. Lauderdale, Florida
Las Cruces, New Mexico
Phoenix, Arizona
Seattle, Washington
Browning, Montana
Brigham City, Utah
Memphis, Tennessee
St. Louis, Missouri
Denver, Colorado
Des Moines, Iowa
Fresno, California
Bakersfield, California
Rochester, New York
Yonkers, New York
Oakland, California
San Jose, California

TASK 13 -- PROCESSING AND ANALYSIS OF DATA

Questionnaires were coded and prepared for key-punching in July and all punching and processing was completed by August 28. The findings of the study are described in Section V following.

V. RESULTS AND FINDINGS OF THE STUDY

As previously stated, the instruments used in the study were designed to elicit information which could be related to elements affecting student attrition. Items on both teacher and student questionnaires were clustered so as to provide descriptions of elements in school vocational education programs in the following six areas of school operations:

1. Teacher Characteristics
2. Instruction
3. School Environment
4. Supportive Services
5. Participation of Parents and Community
6. Organization

The findings of the study are organized below under these six major headings.

A. Teacher Characteristics

On the basis of the research referred to in Section II, and allied sources of information as well as our own experience in minority education, we made several assumptions regarding the influence of teacher characteristics on student attrition in vocational classes. We felt that low-drop out classes would exhibit differences in:

1. Age. Given that the case could be made, among minority groups, for a greater degree of resonance between old and young groups, we expected to see a tendency, however slight, among low drop-out classes, toward older instructors. We

recognized that tenure laws and the recent costive growth patterns of enrollments militated against large numbers of changes in teaching staffs, but we felt that these regressive influences would be offset by the priorities on affirmative action generated by a decade of civil rights enthusiasm and the sensitivity to the research call for consideration of this factor in the teaching staff.

2. Ethnic affiliation. The same persuasion as that operating with age motivated us to suspect that more minority instructors would characterize the low drop-out group. The case made for "successful role models" in the literature presaged a visible concern for this factor eventuating in greater number of minority instructors teaching minorities successfully.

3. Extra-curricular involvement in a job related to the teaching commitment, minority education training or work with youth outside class. These seemed to us valid characteristics to expect of a successful teacher of minority youngsters.

As the tables on the following pages show, none of these assumptions were warranted. While older teachers predominated in all classes, no dramatic differences are seen to relate to high or low dropout. The same holds true for most other characteristics of teachers examined.

If anything, the tables seem to suggest either that spirited dedication to the subject field, in terms of union membership, outside service activities and keeping updated in respect to formal education about human relations and cultural issues, is something one can uniformly expect from most teachers or that a preoccupation with these involvements has little effect on retention of students.

If there are dramatic differences between high and low drop-out classes with respect to teacher characteristics, it is to be seen in the generalized headings which we elaborated to check this phenomenon -- "The teacher had a good understanding of the problems of young adults; The teacher had a good understanding of the problems of other races," etc. Consistently and measurably, the low-drop classes reported these as significant operating variables.

Table 4. Teacher Characteristics
(Age, Sex, Ethnic Affiliation for 62 Teachers Responding)
(Percentages in Parentheses)

Characteristic	Low-Drop Classes n = 32		High-Drop Classes n = 30	
Age:				
Under 25			1	(3.3)
26 - 30	2	(6.3)	6	(20)
31 - 35	7	(21.9)	3	(10)
36 - 40	2	(6.3)	4	(13.3)
Over 40	21	(65.6)	16	(53.3)
Sex:				
Male	17	(53.1)	14	(46.7)
Female	15	(46.7)	16	(53.3)
Ethnic Group:				
Indian	1	(3.1)	1	(3.3)
Black	7	(21.9)	2	(6.7)
Oriental	0	-	1	(3.3)
Spanish-Speaking	0	-	1	(3.3)
White	24	(75)	25	(83.3)

Table 5. Teacher Characteristics
(Outside Activities for 62 Teachers Responding)
(Percentages in Parentheses)

Activity	Low-Drop Classes		High-Drop Classes	
Race-Related Human Relations Training:	n = 31		n = 30	
Yes	17	(53.1)	18	(60)
No	14	(43.8)	12	(40)
Work for Pay Plus Teaching:	n = 32		n = 30	
Continuously	2	(6.3)	1	(3.3)
Frequently	4	(12.5)	3	(10)
Summers Only	5	(15.6)	7	(23.3)
Hardly Ever	6	(18.8)	7	(23.3)
Never	15	(46.9)	12	(40)
Courses Taken at College in Past 3 Years	n = 32		n = 30	
Yes	25	(78.1)	28	(93.3)
No	7	(21.9)	2	(6.7)
Years Worked Before Began Teaching:	n = 31		n = 29	
Less than 3 Years	9	(28.1)	5	(16.7)
3 - 7 Years	8	(25)	4	(13.3)
7 - 10 Years	4	(12.5)	5	(16.7)
Over 10 Years	10	(31.3)	15	(50)

Table 5. Teacher Characteristics (Cont)
(Outside Activities for 62 Teachers Responding)
(Percentages in Parentheses)

Activity	Low-Drop Classes	High-Drop Classes
Teacher's Teen-age Background v. Students' Background:	n = 32	n = 30
Similar to Most	8 (25)	9 (30)
Similar to Half	8 (25)	8 (26.7)
Similar to Few	7 (21.9)	8 (26.7)
Completely Different	9 (28.1)	5 (16.7)
Work with Youth:	n = 31	n = 30
Once/Twice a Week	4 (12.5)	6 (20)
Once/Twice a Month	11 (34.4)	4 (13.3)
Once/Twice a Year	8 (25)	11 (36.7)
Never	8 (25)	9 (30)
Professional Acitivities:	n = 32	n = 30
Active Union Member	8 (25)	9 (30)
Advisory Committee	8 (25)	13 (43.3)
Member of Service Organization	8 (25)	9 (30)
Member of Voc-Ed Organization	24 (75)	23 (76.7)
Other	5 (15.6)	7 (23.3)

Of more than passing notice is the ethnic identification of teachers. While 82% of the students were minority, only 21% of the teachers came from minority-culture backgrounds. A comparison by ethnic groups of teachers and students:

Table 6. Teachers and Students by Ethnic Affiliation

Minority Group	Teachers n = 62		Students High-Drop		Students Low-Drop		n
Indian	2	(3.2%)	12	(60%)	8	(40%)	20
Black	9	(14.5%)	43	(34%)	83	(66%)	126
Oriental	1	(1.6%)	1	(25%)	3	(75%)	4
Spanish-Speaking	1	(1.6%)	14	(82%)	3	(18%)	17
White	49	(79%)	14	(38%)	23	(62%)	37
Other (East Indian)	-		1	(100%)	-		

It is unlikely that congruence between teacher ethnicity and cultural affiliation of students can be substantiated as being of overweening importance. A number of classes in the study had in fact absolute congruence in this regard (e.g., a Black instructor with all Black students), but such classes were both in the highest range of drop-out (over 40%) and the lowest (0%).

Table 4 shows that drop rates for both Black and White students, even while the ratio of students-to-teachers in the groups is extremely disproportionate -- 1:14 for Black and 1.3:1 for White -- to be almost equal. This should not be construed as more than a notice of the ethnic affiliation of students reporting and the type of classes whence they came. Drops from all classes responding are aggregated; thus there is no direct relationship to student-teacher ratios or to causal factors operating.

The various characteristics of teachers were extended for inclusion on the student questionnaire. Students were asked to respond to items concerning the teachers' rapport with ethnic groups, understanding of young people's problems and general statements concerning his/her confidence in dealing with the respective vocational subject areas.

The responses to each of the five items in this set follow:

ITEM 1 -- THE TEACHER HAD A GOOD UNDERSTANDING OF THE PROBLEMS OF YOUNG ADULTS

	Total	High Drop Class	Low Drop Class	Indian	Black	Asian	Spanish	White
1. Strongly Disagree	14	4	10	1	11			2
2. Disagree	28	11	17	2	16	2	4	4
3. Undecided	34	14	20	4	20	2		8
4. Agree	86	38	48	9	50		7	19
5. Strongly Agree	41	16	25	4	28		5	4
MEAN	3.55	3.61	3.51	3.65	3.54	2.50	3.81	3.51

ITEM 2 -- THE TEACHER HAD A GOOD UNDERSTANDING OF THE PROBLEMS OF OTHER RACES

	Total	High Drop Class	Low Drop Class	Indian	Black	Asian	Spanish	White
1. Strongly Disagree	12	3	9		8	1	1	1
2. Disagree	26	13	13	4	17		3	2
3. Undecided	52	22	30	3	30	2	2	15
4. Agree	64	27	37	7	36	1	6	14
5. Strongly Agree	48	17	31	6	34		4	4
MEAN	3.54	3.51	3.57	3.50	3.57	2.75	3.56	3.50

ITEM 3 -- THE TEACHER KNEW THE LATEST DEVELOPMENTS IN HIS SUBJECT FIELD

	Total	High Drop Class	Low Drop Class	Ind-ian	Black	Asian	Span-ish	White
1. Strongly Disagree	7	2	4		3	1	2	1
2. Disagree	18	8	6	2	11			5
3. Undecided	16	6	8	3	7		1	5
4. Agree	96	44	41	9	61	2	8	15
5. Strongly Agree	65	15	24	6	43	1	5	10
MEAN	3.96	3.83	3.90	3.95	4.04	3.50	3.88	3.78

ITEM 4 -- THE TEACHER WAS ALWAYS AVAILABLE TO TALK ABOUT OUR PROBLEMS

	Total	High Drop Class	Low Drop Class	Ind-ian	Black	Asian	Span-ish	White
1. Strongly Disagree	18	4	14		12	1	1	4
2. Disagree	43	26	17	5	29		4	5
3. Undecided	29	8	21	3	18	2		6
4. Agree	75	32	43	6	42	1	10	16
5. Strongly Agree	37	13	24	6	24		1	5
MEAN	3.35	3.29	3.39	3.65	3.30	2.75	3.38	3.36

ITEM 5 -- MOST TEACHERS TREATED US LIKE MATURE ADULTS

	Total	High Drop Class	Low Drop Class	Indian	Black	Asian	Spanish	White
1. Strongly Disagree	12	4	8		9			3
2. Disagree	28	16	12	2	15	1	1	9
3. Undecided	14	7	7	3	7		2	2
4. Agree	103	39	64	7	65	3	8	20
5. Strongly Agree	43	16	27	8	27		4	3
MEAN	3.68	3.57	3.76	4.05	3.70	3.50	4.00	3.30

It is of some interest to note that for three of the five items, the low drop-out classes *exceed* the mean; on onlv one item -- the teachers' understanding of young people -- do high drop-out classes exceed it. In four out of five items, the high drop-out courses exhibit a *lower* mean response than low drop-out courses. Granted that many other factors influence the teacher-student transaction to make it negative or productive, this will be a tendency which, uniformly throughout this inquiry, will manifest itself. High drop-out classes, in the majority of responses, will differ from the low-drop classes.

Summary. It is highly improbable that one could make a strong case for differences observed in the general deportment of instructors as it projected itself to students. By and large, teachers appear as friendly, understanding persons with a sound expertise in their subject field. This is not too surprising, in view of the fact that over half had taken multicultural or human relations training, had at least seven years' experience working in their subject field and were devoted all the time to teaching duties. Moreover, most worked with youth in other than classroom assignments, were extremely active in vocational education-related activities and came from educational and economic backgrounds similar to the students they taught.

As noted, there seems to be a general inverse relationship, however slight, between teacher characteristics, factually reported, and students' perceptions of the behavior assumed to ensue from these characteristics. For example, the greater number of young teachers, minority teachers; those who had most trade experience, who attend college in-service training classes; and whose background matches their students' are in the high drop-out class category. Conversely, the greater number of students who perceive teachers as being solidly grounded in their subject, able to relate to youth and cultural pluralism, etc., are, for the most part, in the low drop-out classes. One can deduce either that there is in fact a counter-productive relationship in some characteristics or that their expression in real-life situations is dependent more on other, related factors (intuition, perhaps) which facilitate their effective manifestation. Or, as later data in the report seemingly suggests, it may be that a general subtle appetite for an intelligent structure, on the part of the students in the school and classroom environment, is the pre-eminent need which must be met, and that positive characteristics of teachers must be adapted to provide sustenance for this appetite.

B. Instruction

The initial emphasis in this study was to have been exclusively on elements relating directly to the instructional setting -- integers which, it was felt, were accessible to amelioration or change by the teacher himself or the administration at the school site. Even though that emphasis was changed, it remained the major focal point of the survey. A great many questions were asked concerning the immediate classroom environment. The following tables and charts summarize the most significant of the findings derived from the items on both teacher and student questionnaires.

Location of Classes. Most classes taught by reporting teachers and students were held on a school campus. There was a suggestion that successful programs would show a high degree of inclination to locate in the community, given the reality orientation of minority students. The fact is, a surprisingly large percentage did use off-site facilities -- over 20%, but their numbers were almost equally spread over both low and high-drop categories. The counts are indicated in Table 7 on the following page.

Table 7. Location of Classes

	High Drop	Low Drop	Class Types				
			1	2	3	4	5
TEACHERS:							
Main Site	20	27	19	5	4	8	11
Off-Campus	10	5	2	3	5	2	3
STUDENTS:							
Main Site	64	99	43	33	19	15	43
Off-Campus	21	21	16	39	10	3	17

More significantly, responses to a related student question -- Was part of your training in a work experience program? -- shows that better than 50% of all students went off campus for some part of their instruction. The breakdown by drop-out categories and and ethnic groups:

			Ethnic Group				
Location	High Drop	Low Drop	I	B	A	S	W
On-Campus	50	60	5	57	3	9	24
Work Experience	35	60	15	69	1	8	13

and by type of class:

	Type of Class				
Location	1	2	3	4	5
On-Campus	34	24	13	14	35
Work Experience	25	15	16	4	25

Time of Class Meeting. All but three of the classes were reported by teachers as meeting in the morning. While there was decided preference for these hours by both high and low drop student categories, there was a marked difference in degree across the two classifications. Low drop-out classes chose by a 75% majority the early classes; high drop-out classes by 58%. A further point of interest is the manner in which ethnic groups related to this item. Taking the "undecided" responses to the question and adding these to the two protocols which "agreed" or "strongly agreed" that the morning time was inconvenient, the ethnic breakdown revealed:

American Indians...	75%
Black.............	26%
Asian.............	25%
Spanish...........	12%
White.............	8%

It would seem from the evidence that Indian students are not particularly attracted to early hour classes. Remembering that minority groups seem to be responsive to an affective approach to learning, we made the assumption that minority students would resonate to variety in class format, activities, scheduling and organization. A number of questions were asked of both teachers and students regarding a number of phenomena held to be expressions of an infusion of such variety into the instructional setting.

Visiting Experts. One practicable method of varying the fixed routine of occupational classes is to invite guest lecturers, employers and experts from business and industry to discuss the subject field with students or to give demonstrations of new methods or practices. By far the major percentage of all classes surveyed used this technique. There was no appreciable difference in use between high and low-drop classes, a slightly greater frequency being observed in high-drop courses. Women's occupations and new careers training used the device far more than union craft, business or preprofessional courses did:

	Type of Class				
Frequency of Use	1	2	3	4	5
Once a month or more	9%	63%	67%	20%	29%
Once or twice a year	67%	37%	22%	50%	50%
Never/almost never	24%		11%	30%	21%

Students had an appetite for even more of such visitations by experts. Asked if they agreed that there was need for more outside visitors, the ethnic groups responded thus:

	Ethnic Group*					
Response	1	2	3	4	5	6
Agree (%)	85	55	75	71	62	100
Disagree (%)	0	29	0	18	30	0
Undecided (%)	15	16	25	11	8	0

Field Trips. Only eleven of the 62 teachers reported never using field trips as an adjunct to instruction. However, only six reported using them more than once or twice a year. Again, there was not much difference in use between high and low drop classes, but again, the same pattern amongst ethnic groups repeated itself: uniformly, they felt they should have more:

	Ethnic Group*					
Response	1	2	3	4	5	6
Agree (%)	85	86	50		71	59
Disagree (%)	15	10	0	0	18	19
Undecided (%)	0	4	50	12	11	22

Block Scheduling. Flexible scheduling, on the college model, has long been upheld as something desirable for minority learning styles. It received no justification in this study. Only five classes met on a three-times-a-week schedule. Two met four times a week, and all others were on the typical daily schedule, Monday through Friday. Eighty-two percent or more of Indians, Blacks, Whites and Spanish-speaking students indicated that their present schedules were adequate, and three out of the four Asian students concurred.

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*1 - Indian; 2 - Black; 3 - Asian; 4 - Spanish; 5 - White; 6 - Other

Teaching Aids. Most people would expect that concrete, inductive, reality-based cognitive styles would find a variety of teaching styles assisted by visual aids compatible and helpful. A check-list of such aids were presented to teachers with the request that they indicate the frequency of their use of such aids as video, films, mock-ups, etc. The results are reported in Table 8 on the following page. As can be seen, non-users or infrequent users appear in about identical frequency with heavy users. (Non-response to a listing was regarded as non-availability or non-use). Furthermore, daily use appeared most often in two singular categories of classes -- women's occupations and preprofessional -- and with two ethnic groups - Indians and Blacks.

As a parallel question, students were asked whether they felt their instruction needed augmentation by the use of more films, TV, mock-ups, etc. The reaction was mixed, except that Indian and Black students expressed the most decided wish for more use of these aids:

Response	Indian	Black	Asian	Spanish	White
"yes"	85	67	50	40	60
"no"	15	33	50	60	40

There were no egregious differences between teachers of high and teachers of low drop-rate classes. Where differences surfaced at all, they generally went against expectations: high drop-out classes were the ones which reflected greater use of media and other aids. The "daily" use among teachers provide this example, which was typical of other degrees of use:

Group	TV	Models	Slides	Film	Overhead Projector	Strips
High-Drop Classes	13%	47%	20%	10%	33%	13%
Low-Drop Classes	9%	31%	0%	3%	34%	22%

Class Size. Both students and teachers were asked about the number of students enrolled in their classes. By and large, both groups were content with the class sizes as they saw them. The responses:

Response	High Drop	Low Drop
Teachers:		
Ideal Size	57%	69%
Need Fewer	33%	25%
Far Too Many	10%	6%
Students:		
Size No Factor	65%	65%
Undecided	5%	13%
Too Many Students	30%	22%

Table 8. Frequency of Use of Teaching Aids
(Video, Film, Mock-Ups, Slides, etc.)

Teaching Aid	Frequency*					
	1	2	3	4	5	6
1. Video Tape	26	17	1	7	4	7
2. Models or Mock-Ups	15	6	1	4	12	24
3. Slides	20	9	1	11	15	6
4. 16 or 35 mm Film	15	9	0	10	24	4
5. Overhead Projector	7	9	1	7	17	21
6. Film Strips	9	6	0	16	20	11
TOTALS	92	56	4	55	92	73

*1. No Answer
2. Almost Never
3. Yearly
4. Once or Twice a Year
5. Monthly
6. Almost Daily

Number of Teachers Reporting = 62

Teacher Assistants. The theory has been implicit in the literature for some time, that because of differences in learning styles, minority students will profit by the presence of teacher aides, teacher assistants and other paraprofessionals in the classroom. Black, White and Indian students did not feel that the instructor needed more assistants, Black students by a 66%, White students by a 79%, and Indians by a 65% margin. Asians, however (75%) and Spanish-speaking students (47%) agreed that they would welcome more of this help. Regarding actual provision of paid assistants in the classes, almost 90% of teachers did not answer the item, indicating that teacher aides, interns and teacher assistants were not being provided to any great extent in the districts canvassed.

Grades. One of the indicators of the subtle wish for structure on the part of minority students derives from a question on another aspect of instruction - grades. The supposition was that these students, being more realistically oriented, at the same time that they were less related to symbolic rewards, would favor grading systems which eschewed strict levels of achievement or performance, expecially as it put them in competition with peers. The findings bespeak an attachment with letter grades that students do not wish to have broken.

All classes without exception, of type 2 (women's occupations), type 3 (new careers), and type 3(preprofessional) gave letter grades. Eighteen out of twenty-one union crafts trades (type 1) and 11 of 14 business classes (type 5) also gave traditional letter grades. Only six teachers in all (10%) used pass-fail, satisfactory-unsatisfactory or other means of performance evaluation; five of the six were teachers in high-drop-out classes.

Students were apparently content with the letter system. Only 34% agreed that there was "too much emphasis on grades and performance." Curiously, over 42% of high-drop class students agreed with the contention, against only 35% of low-drop class clientele. The high-drop classes were almost the only recipients of other than letter grades in the teacher survey. What this may be saying is that many students are still searching for a meaningful structure in which their learning activities take place. Almost uniformly, the greatest clustering for all groups took place in the mid-band of five weighted responses - in the "undecided" category. One-quarter to over one-third of all students in any grouping were undecided about grading systems. Here are the percentages of "undecided" responses across the groups:

Current students	20.9%
Dropped students	28.9%
High-drop classes	23.5%
Low-drop classes	24.2%
Strong union towns	23.3%
Weak union towns	25.0%
American Indian	35.0%
Black	23.8%
Oriental	-
Spanish-speaking	29.4%
White	18.9%
Union crafts classes	25.4%
Women's occupation classes	[illegible]7.9%
New careers training	24.1%
Preprofessional classes	11.1%
Business classes	30.0%

Team Learning - Team Teaching. Their relation both to variety and to the minority students' ostensible desire for convivial, friendly surroundings makes team-teaching and studying in teams additives in instruction with suggested promise. Students and teachers both were asked the extent to which each of these techniques were used in their classes.

Sixty-eight percent of the teachers rarely or never used the technique of teaching, jointly with a colleague or other professional, the vocational classes under their jurisdiction. Twenty-seven percent of teachers in high-drop-out classes used a team approach "regularly" or "often," as against 34% of low-drop class teachers. Team-teaching was most often seen in classes with predominant Indian and Spanish-speaking enrollment and in new careers (44%), preprofessional (50%) and women's occupations (50%) classes.

Fifty-six percent of all students had experience working in teams in their classes. This percentage held constant through almost all groups and types of classes in the study. The highest percentages of use of team-learning were in low-drop classes (67%) (v. 48% for high-drops), 55% among Black students, and in women's, union craft and new careers classes (over 60% in each category).

Individualized Instruction. Another prominent technique which projects itself as a natural outgrowth of minority student characteristics is individualized instruction. Minority cultural groups are deemed to be blessed with the capacity for close personal relationships, as well as oriented toward immediate, utilitarian goal-setting. This implies an extended capacity for profitable close personal contact in a teacher-learner situation. That teachers were aware of these contingencies and capitalized on them is reflected by students' statements concerning their receipt of individualized instruction in their classes. Through all groups and types, the majority of students received some kind of individualized teaching. The analysis by categories:

All students	60%
Current students	64%
Dropped students	56%
High drop-out classes	58%
Low drop-out classes	63%
American Indians	65%
Blacks	65%
Asians	50%
Spanish-speaking	70%
Whites	46%
Union-crafts classes	70%
Women's occupations	56%
New careers	56%
Preprofessional	56%
Business education	53%

Given the wide range of techniques attempted by teachers in the reporting classes, it is not surprising that students received such widespread personal service. Following is a frequency table of various individualized methods employed by teachers of the classes:

Table 9. *Frequency of Use of Differential Individualized Teaching Approaches*

(In Percentages)

Approach	High Drop	Low Drop	Class Types 1	2	3	4	5
Learning Stations	25	33	38	38	22	10	36
Sequenced Projects	56	56	48	38	56	50	71
Advanced Placement	50	38	52	13	22	40	64
Work in Teams	41	39	52	25	44	10	50
Other*	17	16	5	38	22	10	21

*Buddy System
Coop Work Teams
Modular Units
Outside Assignments
Individual Scheduling of Teacher Time

Short-Unit Instructional Modules. An affective cognitive style is seen also as an inductive approach to the apprehension of impressions. Translated into practical terms, this implies a predilection for short-span, project-oriented, self-contained, shorter units of instruction. In two ways, instructors were queried about the implementation of this insight. They were asked if their program was a sequence of courses which have to be taken before the student is judged ready to accept employment. The thesis is that the shorter the unit which can provide job readiness, the more attractive it becomes to a clientele whose learning style is indeed an accelerated processing of forms. The shorter the form (or process) the more likely it is to be completely grasped.

Teachers were also asked if they thought their courses *could* be shortened. The responses to the questions:

QUESTION: *Is the course you teach part of a sequence of courses the student must complete before he is ready to accept a job in the field?*

(In Percentages)

Response	High Drop	Low Drop	Indian	Black	Spanish	All
Yes	40	53	57	43	63	47
No	60	41	43	53	37	50

Types of Classes

Response	1	2	3	4	5
Yes	57	25	67	40	36
No	38	75	33	50	64

QUESTION: In your opinion, would your course (or program) serve students' needs better if it were shortened?

(In Percentages)

Response	High Drop	Low Drop	Indian	Black	Spanish	All
Yes	7	13	14	11	0	10
No	93	87	86	89	100	90

Types of Classes

Response	1	2	3	4	5
Yes	0	13	22	10	14
No	21	87	78	90	86

Physical Environment. Mindful of the concrete, spatial, physical, visual and "external" orientation of minority students' cognitive processes, we made the assumption that classroom environments would contain sufficient quantities of equipment and supplies, particularly smaller pieces of hardware which would allow most students to be occupied in a "hands-on" commitment.

In that connection, we asked a number of questions of teachers to determine the extent of equipment and instructional supplies actually provided; and of students, to get some sense of the effects of the classroom environments available to them.

Teacher responses are summarized in Table 10.

The table shows that over all, space, equipment and supplies are not seen as a monumental problem and that the adequacy perceived extends roughly in the same measure across all stratifications, with the exception of some slight deviations in union-crafts and preprofessional classes and classes where Black and Spanish-speaking students predominate.

The students' perceptions of these factors are summarized in Table 11.

From the students' standpoint, there is a consistent inverse relationship in the perceptions of teachers with regard to equipment, materials and supplies, so far as high and low drop classes go. Responses of teachers of high-drop classes implied that such classes were better appointed with materials, equipment, etc., than their low-drop counterparts. Students responses inclined toward a contrary impression: in each instance, the low-drop classes appear to have been better equipped. At the same time, students responses, when divided by ethnic groups or by types of classes, did not exhibit even the slight deviations associated with these categories in the teacher canvass.

Summary. A number of elements directly operative in the classroom setting have seemingly strong relationship to minority students' learning styles. These were analyzed from the standpoint of degree of presence or absence in various types of classes and with various student groups in the study.

No relevant differences were associated with high-attrition classes where location of the programs was concerned: about as many high as low drop-out classes used off-site facilities for instruction.

So far as time of day for instruction in the classes went, low-drop programs definitely favored early-hour (morning) classes. Interestingly, also, American Indians averred, by a 3-to-1 margin, that classes should start later. This is totally in keeping with Indians as "body" types. Our classification of other minority cognitive styles was further ratified by the order of preference of the other ethnic groups.

Table 10. Teacher Perceptions of the Equipment, Supplies and Space Provided*

1. Classroom Space

Perception	High Drop	Low Drop	Group			Type of Class				
			I	B	S	1	2	3	4	5
Well Suited	43	47	86	36	63	38	37	67	60	36
Need More Space	47	31	14	45	25	48	25	33	10	57
Not Fully Useful	10	6	-	9	13	5	38	-	-	7
Need Different Facility	-	16	-	11	-	10	-	-	30	-

2. Supplies

Perception	High Drop	Low Drop	I	B	S	1	2	3	4	5
Totally Sufficient	53	38	43	47	38	29	50	22	50	79
Enough	43	47	57	43	50	62	38	78	30	14
Minimum	3	13	-	11	-	10	13	-	10	7
Insufficient	-	3	-	-	-	-	-	-	10	-

3. Equipment (Amount)

Perception	High Drop	Low Drop	I	B	S	1	2	3	4	5
Totally Sufficient	53	28	43	40	38	33	63	22	20	65
Enough	40	59	57	51	38	62	38	78	40	29
Minimum	7	9	-	9	13	5	-	-	30	7
Insufficient	-	3	-	-	13	-	-	-	10	-

*(In Percentages; I = Indian, B = Black, S = Spanish-speaking)

Table 10. Teacher Perceptions of the Equipment, Supplies and Space Provided* (Cont)

4. Equipment (Condition)

Perception	High Drop	Low Drop	Group			Type of Class				
			I	B	S	1	2	3	4	5
Totally Adequate	43	25	29	30	63	38	38	56	20	21
Could Use Some New	50	66	71	60	38	52	63	44	60	71
Mostly Out-Dated	7	9	-	11	-	10	-	-	20	7
Obsolete, Inadequate	-	-	-	-	-	-	-	-	-	-

*(In Percentages; I = Indian, B = Black, S = Spanish-speaking)

Table 11. Student Perceptions of the Equipment, Supplies and Space Provided*

1. Classroom was Large, Well-Lighted, Comfortable

Opinions	High Drop	Low Drop	Group			Type of Class				
			I	B	S	1	2	3	4	5
Strongly Disagree	8	3	5	5	-	7	10	-	6	3
Disagree	8	9	10	9	-	5	18	10	6	7
Undecided	6	2	5	2	-	7	5	-	6	-
Agree	54	53	55	54	53	50	39	55	61	63
Strongly Agree	21	33	25	30	41	27	28	35	22	27

*(In Percentages; I = Indian, B = Black, S = Spanish-speaking)

Table 11. Student Perceptions of the Equipment, Supplies and Space Provided* (Cont)

Opinions	High Drop	Low Drop	Group			Type of Class				
			I	B	S	1	2	3	4	5
2. Equipment was Modern, Up-to-Date										
Strongly Disagree	4	1	5	1	-	2	8	-	-	2
Disagrèe	17	13	5	14	6	17	21	10	11	12
Undecided	8	8	15	9	6	10	5	3	6	10
Agree	44	52	50	48	53	37	49	45	56	58
Strongly Agree	24	27	20	29	29	31	18	38	28	18
3. There was Enough Materials and Supplies										
Strongly Disagree	9	5	-	5	-	9	15	-	-	5
Disagree	20	10	5	16	18	9	18	24	11	13
Undecided	8	6	25	6	-	7	5	14	6	5
Agree	45	52	35	50	59	41	46	38	67	58
Strongly Agree	15	28	35	23	18	32	15	24	17	18

*(In Percentages; I = Indian, B = Black, S = Spanish-speaking)

Table 11. Student Perceptions of the Equipment, Supplies and Space Provided* (Cont)

4. There was Enough Equipment for All

Opinions	High Drop	Low Drop	Group			Type of Class				
			I	B	S	1	2	3	4	5
Strongly Disagree	8	8	10	7	-	7	13	3	-	12
Undecided	11	15	15	21	35	12	23	31	28	18
Agree	39	41	25	40	47	39	36	31	56	43
Strongly Agree	13	28	35	24	29	29	18	28	11	18

*(In Percentages; I = Indian, B = Black, S = Spanish-speaking)

No appreciable differences were observed across the categories with respect to use of outside experts from business and industry, though usage of the technique overwhelmingly predominated in women's occupations and new career courses.

All ethnic groups felt there was definitely need for more visiting lecturers, more field trips and greater use of audio-visual and other media aids. In the case of media assistance, Indian and Black students in particular felt the need for more spirited usage. Ironically, however, high use tended to be associated with high drop-out.

Class size, letter grades (v. pass/fail or other systems) teacher aides, shorter units and team-teaching/team learning all seemed slightly related to attrition and to ethnic groups, with trending in the direction of a positive relationship to retention of these students.

The provision of materials, supplies, equipment and spacious facilities seemed of little concern to teachers, but there appears to be a definite association of the provision of amounts and types of these resources with retention.

C. School Environment

In terms of the structure which generates an ambience, a total environment, around and in a school, American educational institutions seem marked by a disturbing sameness. Inner city schools in Los Angeles are not visibly much different than those of Columbus, Ohio or Williamsport, Pennsylvania. Yet we know that institutions and campuses do have deep differences, perceptible perhaps only to students, but active and influential, nevertheless. It appears that the ethos of the school, the unseen structure that *is* the environment, owes its invisibility to the fact the total surrounding is a sum of many parts. The classic dissection of a school's atmosphere which proved that is, of course, Ted Newcomb's "Personality and Social Change," a four-year study of attitude formation at Bennington College, Vermont.[25] From the insights generated by that study, Newcomb's colleague, Robert Pace, developed the College and University Environment Scales (CUES) now widely used (or adapted for use) by many schools and colleges.[26] The test is basically an acknowledgment that multitudinous little, subtle factors go to make up a school environment. It is composed of some 150 items which constitute a measure of the "environmental press" perceived by students, i.e., the psychological demands of the school situation as a potential mediator satisfying or frustrating students' needs.

The virtue of the approach of CUES is that it depends solely on a student's perception, on what he sees as present or absent. It does not demand sophisticated statistical analysis of variability (hypotheses of difference) anterior to acceptance of findings. The differences are in the perceptions.

Because of the relatively global boundaries and intentions of the present study and its relatively crude protocols, most of the questions put to students and teachers lent themselves to the CUES method of presentation. Subjects were asked to report if they saw a certain condition and, at most, what they felt about the phenomenon observed. The common variable through all responses is the character of the attrition in the classes whence the observations come. A class suffered either high drop-out during the 1973-74 school year, or it enjoyed good holding power. Individual respondents, from item to item, may represent a different aggregate of subjects, but whether they are current students enrolled in the vocational education classes under study, students who discontinued the voc-ed classes but did not drop from school or students who dropped from school completely, their quondam perception of the locus of a course which had one of two characteristics is likely to be a perception of an external situation that has remained constant for some time. Schools change with glacial slowness. (Average differences of means for weighted responses between current and dropped students, for instance, on the first three sections of student questionnaires were on the order of .17 on a 1.00-to-5.00 gradient which included relatively inoperative and widely fluctuating "undecided" response among the five choices).

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[25] Newcomb, Ted, Personality and Change, Holt, Rinehart and Winston, New York, 1943.

[26] The Psychological Corporation, New York, 1950.

A test of the general environments of the schools studied was attempted by presenting a series of conditions (e.g., "part-time jobs for students on campus;" "students are free to smoke on campus," etc.) and asking respondents to indicate whether the condition existed at their schools or not. Then, in the case of students, depending on whether such student was currently enrolled or dropped, he/she was asked to indicate whether he/she felt the condition was a factor in his/her staying or leaving. Teachers were asked simply to indicate the degree of presence or absence of the phenomena as they saw them.

The literature extends the contention that minority students in general relate positively to a friendly, relaxed, supportive learning environment. Individual elements in that configuration might be any one of hundreds of facets of campus life -- from Board of Education policies to attitudes of custodians or secretaries. We selected a list which could be separated into district areas of school operations - student support services, organization, and participation of students and the community. Five of these were so pervasive in their manifestation that it seemed prudent to group them under the general heading of "Environment." This section deals with findings related to this portion of the study.

Smoking. The first item in this series was "Freedom to smoke on campus." The question was asked: Did the school provide this? Current students were asked, "If 'Yes', how helpful has it been in keeping you enrolled?" with three possible choices of reply: "No Help," "Some Help" or "Great Help." Dropped students were asked "If 'No', how helpful would it have been in keeping you enrolled?" The responses to the first item are aggregated by percentages in the following table:

Table 12. Smoking on Campus*

Response	Total	High Drop	Low Drop	Ethnic Group				
				I	B	A	S	W
Yes	53	60	47	65	45	-	41	81
No	45	37	50	25	52	100	59	19
No Help	30	29	31	30	24	50	18	54
Some Help	19	15	21	15	20	25	29	11
Great Help	10	12	9	10	11	-	12	8

*(In Percentages; I = Indian, B = Black, A = Asian, S = Spanish-speaking, W = White)

It is seen that most students enjoyed smoking privileges on their campuses. At the same time, only about one in ten felt it to be of some important assistance in keeping them enrolled.

In respect to freedom of expression, students were asked whether the school provided freedom to speak out in the school paper. The results appear in Table 13. Table 14 gives the summary of responses to the item "freedom to move about the campus without permission," and Table 15, "freedom to wear hair and clothes the way you want."

If these responses are any indication, minority students prize freedom of expression more than their white counterparts, perhaps because as the chart implies, they have less of it, or feel that they do. A sense of values is likewise evident -- even while smoking privileges are far less available than a voice in the school paper, the smoking is seemingly not nearly wanted so much.

Probably the most significant freedom which students respected was freedom of dress. Of the items mentioned, it was also the freedom students had in greatest abundance across all sites and groups. Just about 4 out of every 5 students enjoyed it; and 1 out of every 2 felt it a factor in making life tolerable enough in school to stay there.

Table 13. Freedom to Speak Out in School Paper*

Response	Total	High Drop	Low Drop	Ethnic Group				
				I	B	A	S	W
Yes	74	75	73	65	71	100	77	81
No	21	18	23	25	23	-	18	16
No Help	16	19	14	15	7	-	24	46
Some Help	25	19	29	30	27	50	-	24
Great Help	16	12	18	35	17	-	6	8

*(In Percentages; I = Indian, B = Black, A = Asian, S = Spanish-speaking, W = White)

Table 14. Freedom to Move about Campus without Permission*

Response	Total	High Drop	Low Drop	Ethnic Group				
				I	B	A	S	W
Yes	40	53	31	70	29	25	65	51
No	56	42	66	20	67	75	35	46
No Help	15	15	14	15	14	25	18	11
Some Help	23	26	21	30	23	50	18	19
Great Help	16	19	14	25	14	25	12	22

*(In Percentages; I = Indian, B = Black, A = Asian, S = Spanish-speaking, W = White)

Table 15. Freedom to Wear Hair and Clothes the Way You Want*

Response	Total	High Drop	Low Drop	Ethnic Group				
				I	B	A	S	W
Yes	80	74	83	90	77	75	88	78
No	16	22	11	-	18	25	6	22
No Help	8	1	13	-	8	-	-	19
Some Help	23	24	23	30	23	25	24	22
Great Help	28	26	29	45	27	25	24	24

*(In Percentages; I = Indian, B = Black, A = Asian, S = Spanish-speaking, W = White)

Student Voice in Discipline. Especially as it relates to an appreciation of a friendly, cooperative atmosphere by minorities and to their reverence for freedom of expression (Tables 13, 14) the provision for due process in the resolution of student maladaptive behavior or grievances seemed indicated. Indeed, only freedom of expression and dress seemed more important to minorities. It is interesting that Spanish-speaking students were the least emphatic in every instance we have mentioned regarding the importance of personal freedoms. In respect to due process, they again dramatically deviate from the general trend, which is heavily inclined toward a democratic, self-determined view - see Table 16.

It is interesting to note that low-drop classes, with the exception of this and the preceding item, seem to have enjoyed less freedom than their high-drop cohorts. Yet in each instance, they hold the freedom to be far more importantly related to staying in school than high-drop class students. Why? Again, the question of structure is raised. On the other hand, a startlingly chary attitude appears in the Spanish-speaking sector of these tables: Spanish-speaking students seem to get far more freedom than almost any other group, but account it as being of far less help than any other group. Why?

As a final recapitulation of this series, the general question was posed: Is school a very friendly place?

Table 16. Students Have Some Say in Resolving Grievances*

Response	Total	High Drop	Low Drop	Ethnic Group				
				I	B	A	S	W
Yes	66	65	67	65	62	50	88	70
No	26	28	25	15	32	25	-	10
No Help	9	8	9	10	5	-	12	22
Some Help	26	17	33	20	27	50	6	27
Great Help	21	17	24	25	23	-	12	19

*(In Percentages; I = Indian, B = Black, A = Asian, S = Spanish-speaking, W = White)

The reactions of students are summarized in Table 17. As the table implies, only 52% of all students felt their school to be a friendly place -- with 1 out of more than every five students undecided. Moreover, only 2 out of 10 Indian students and just slightly better than 1 out of 5 Spanish-speaking students thought their schools were friendly in their general atmosphere.

One final item which bears on this issue is the item on the teacher questionnaire concerning the attitude of the school toward male-female friendships as they were manifest on campus. Again, there was a tremendous amount of freedom implied by all teachers, irrespective of the predominant ethnic group under their jurisdiction, for all types of classes and in both high/low drop categories. A "very liberal" attitude prevailed in 71% of the cases (with a high of 88% for Spanish-predominant classes); and only 3% of the teachers rated their campus as "intolerant" of boy-girl exchanges.

Relations of Students with Campus Groups. Teachers were asked to rate the relations of students with a number of discrete populations on campus with whom they had contact outside of class. The totals in Table 18 are percentages of the frequency of the teachers' ratings of "fair" and "poor" for each group. (All "excellent" and "good" ratings are deleted from the totals).

Table 17. Responses to the Item: School Was a Very Friendly Place*

Response	Total	High Drop	Low Drop	Ethnic Group				
				I	B	A	S	W
Not Applicable	2	4	-	-	2	-	6	-
1. Strongly Disagree	10	8	11	5	14	-	6	-
2. Disagree	16	18	15	30	18	-	6	11
3. Undecided	22	14	27	45	17	25	65	32
4. Agree	36	38	34	10	36	25	18	38
5. Strongly Agree	16	19	13	10	14	50	18	19
MEAN	3.32	3.43	3.24	2.90	3.16	4.25	3.94	3.65

Table 18 suggests that students experienced their greatest difficulties with themselves and with distant authority -- in the persons of administrators and police. The over 40% of "fair" and "poor" ratings (combined) in the police table suggests both that campuses have considerable traffic with law enforcement officers and that their presence probably runs counter to their deep appetite for freedom which we observed in the preceding tables.

Summary. A number of items were chosen to sense the perceptions of students with respect to the total campus atmosphere. Five elements were chosen for their symbolic and real value -- freedom to smoke, since it is an example of behavior controlled to some extent by law off campus; freedom to speak out and freedom to move about without sanctions because they related to the source of a generation of campus youth unrest in this country; freedom to wear clothes and groom one's self as one wishes, because it relates to the validity of different personal opinion and tastes; and the ability to be judged by one's peers in an issue of discipline or grievance, because it relates so strongly to the fairness with which we believe cultural pluralism is nourished.

Surprisingly, the survey revealed a considerable amount of freedom in respect to these concerns nation-wide. Freedom of expression,

Table 18. Teacher Perceptions of Student Relations with Campus Groups*

		High	Low	Ethnic Group			Course Types				
Response	Total	Drop	Drop	I	B	S	1	2	3	4	5
A. With Administrators											
Fair	19	13	25	-	23	13	10	13	33	20	29
Poor	2	3	-	-	2	-	5	-	-	-	-
B. With Faculty											
Fair	10	19	11	14	11	-	10	13	11	10	7
Poor	2	3	3	-	2	-	5	-	-	-	-
C. With One Another											
Fair	24	20	28	43	21	25	24	-	44	40	14
Poor	2	-	3	-	2	-	5	-	-	-	-
D. With Non-Teaching Staff											
Fair	13	10	16	-	17	-	15	-	11	10	22
Poor	2	-	3	-	2	-	5	-	-	-	-
E. With Police											
Fair	29	13	44	29	30	25	33	-	22	50	29
Poor	13	20	6	-	15	13	14	13	33	-	7

*(In Percentages; I = Indian, B = Black, S = Spanish-speaking)

freedom of dress and freedom to be judged by peers was very strongly reported as being important to staying in school or dropping out. Low drop-out class students reported having slightly less freedom than students from high-drop classes, but seemed to consider it of far greater importance as help in staying in school.

As to relations with other groups on campus, teachers reported the vast majority of students apparently enjoyed good rapport and communication with their teachers, with secretaries, custodians and other non-teaching personnel; and to a lesser extent, even with administrators. But 26% of the judgments on their relations with each other were "poor" or only "fair." At the same time, almost half the judgments of students' relations with police were less than good.

D. Supportive Services

No case, presumably, needs to be made for the propriety of providing a wide range of human development services to students, particularly minority students. The high correlation between minority populations and poverty groups has produced almost universally a concern for offsetting economic (and thereby cultural) disadvantagement by making available an array of assistance -- financial, educational, legal, medical and social -- to reinforce the students' learning effort. We asked both teachers and students to indicate the extent to which the survey schools provided such services.

As a preliminary, we had asked both students and teachers about students' preparation in reading, writing and math. In the summary tabulation for all students teachers said:

It is no handicap	3%
Most of the students are well prepared	16%
Half are well prepared	34%
Few are, most are not	24%
Lack of preparation is a big handicap	23%

When asked the same question, only 7% of the students admitted that their reading, writing and math preparation was not adequate. The percentages by groups who felt they did not have sufficient basic skills.

High-drop classes	11%
Low-drop classes	11%

American Indian	5%
Black	8%
Spanish	6%
White	8%
Asian	0%

The disparity between teacher and student appraisal of the same phenomenon is broadened by the students' appraisal of their understanding of English. With about 82% of the students coming from minority cultures, one would have expected a greater feeling of insecurity with the language. Not so. Fewer than 6% of the students felt they did not understand English well enough to handle the language demands of their classes. Only Indian students evaluated their language skill as deficient in a proportion to warrant notice -- 15% agreed that they were not competent in English.

Remedial Assistance. The extent to which remedial assistance to improve reading, writing and math skills was available to students was impressive in terms of both the variety of assistance as well as its general accessibility across the groups.

Table 19. Remedial Assistance Available to Improve Basic Skills

(Teacher Responses in Percentages)

Assistance	Total	High Drop	Low Drop	Ethnic Group		
				Indian	Black	Spanish
Reading Lab	68	70	66	100	66	50
Writing Lab	31	33	28	43	26	50
Math Lab	55	63	47	100	49	50
Learning Center	48	50	47	100	38	63
Tutorial Help	53	60	47	86	45	75
None of these	2	3	3	-	2	-

Two characteristics of these figures are worthy of mention. From the teachers' reports of their classes, low-drop students appear regularly to have less access to remedial resources than high-drop classes. This relates to their seeming aversion to media-oriented instructional aids which we coserved earlier. The disproportionate provision of writing skills laboratories -- the strategy with the lowest frequency reported -- is indication probably of a general inability to deal with this deficiency.

Regular Services Provided Students. A summary of services provided by schools on a regualr basis, as reported by teachers, appears in Table 20. The table shows a rich infusion of ancillary pupil personnel services into school programs. We included the union strength of towns in this table to test one of the assumptions made from feelings derived in the site visits, that districts with "weak" union strength in the surrounding work force were providing more support to their student clientele than those with "strong" union membership in the surrounding area's work force. In two relevant services -- full-time placement counselor and full-time vocational counselor, this indeed was the case. In others -- free loan of tools, career guidance center and tutoring -- the obverse was true.

In connection with placement, Table 20 is extended (starred items) to include a further detailing of explicit job-related services. In the extension, one can detect again a larger provision of services consistently in the high-drop category, directly counter to the expectancy. Union-oriented districts also contravene our expectancy. They provide more of most of these services, though not by much, than weak union localities.

A further check was made of the services available to provide review, brush-up or make-up opportunities to students. The results appear in Table 21. The striking note is that in most cases no formal, provision seems to be made for review or reinforcement through means that do not depend on the classroom instructor. Again, it appears low-drop students have a scantier diet of media-oriented resources than high-drop class students; weak union localities seem to provide more resources than strong union environs; and Blacks, who with Indians relate strongly to media, have rather restricted access to these artifacts.

Services to Bilingual Students. A large assumption in this study concerned the ability of minority students to understand instruction presented almost exclusively in English. With that in mind, we asked students and teachers about services available to bilingual students.

Table 20. Services Schools Regularly Provide to Students**

Services	Total	High Drop	Low Drop	Strong Union	Weak Union	Ethnic Group		
						I	B	S
Social Services Referral	63	70	56	56	73	100	55	75
Psychological Diagnosis	62	67	56	56	70	100	57	50
Scholarships, Prizes	66	67	65	67	65	72	62	38
Full-Time Placement Aide	65	70	60	56	77	100	60	63
Free Meals	53	57	50	42	69	100	49	38
Career Guidance Center	10	10	9	11	8	29	9	-
Health Services	55	63	47	58	50	86	49	63
Free Loan of Tools	26	23	28	33	15	14	32	-
Free Tutoring	37	40	34	42	31	43	34	50
Full-Time Vocational Counselor	61	63	60	48	81	100	53	75
None of the Above	3	-	6	2	-	-	4	-
*Locate Jobs	77	80	75	75	81	100	75	75
*Supply Employers Applicants	24	27	22	28	19	14	30	-
*Preparation for Job Interview	68	73	63	67	69	71	66	75
*Aptitude Testing	57	63	50	61	50	71	53	63
*Apprentice Testing	19	20	19	28	8	29	21	-
*Civil Service Testing	34	27	41	39	27	29	38	13
None of These (*)	3	3	3	6	3	-	4	-

**(In Percentage, I = Indian, B = Black, S = Spanish-speaking)

Table 21. Resources Available Nearby for Student to Review or Brush-Up Material*

Resources	Total	High Drop	Low Drop	Strong Union	Weak Union	Ethnic Group		
						I	B	S
Individual Programed Units	36	43	28	31	42	43	36	25
Cassette-Slide Units	23	17	28	25	19	29	23	13
Learning Resource Center	24	40	9	19	31	29	23	25
Tutorial Help	23	20	25	17	31	72	13	38
None of These	39	40	38	42	35	29	41	38

*(In Percentages; I = Indian, B = Black, S = Spanish-speaking)

Table 22. Extra Assistance Provided for Bilingual Students*

Assistance	Total	High Drop	Low Drop	Strong Union	Weak Union	Ethnic Group		
						I	B	S
English as Second Language	27	33	22	22	35	71	17	50
Bilingual Vocational Teachers	11	10	13	8	15	29	6	25
Bilingual Tutors	23	23	22	22	23	29	13	75
Bilingual Texts	11	10	13	11	12	43	9	-
Review in Second Language	10	10	9	11	8	29	9	-
None of These	44	43	44	53	31	-	55	13
No Answer	16	13	19	17	15	-	21	-

*(In Percentages; I = Indian, B = Black, S = Spanish-speaking)

As can be seen, over half of the districts seem to have no special resources for bilingual students. Weak union towns again seem to provide more of these services. Similarly high-drop classes appear to have access to more, by a slight margin, than low-drop classes. Students judged the importance of these services as a factor in their remaining in school. Their reactions:

Table 23. Bilingual Aides and Tutors*

Response	Total	High Drop	Low Drop	Strong Union	Weak Union	Ethnic Group		
						I	B	S
No Help	14	12	15	16	11	5	10	18
Some Help	25	26	25	23	27	45	24	18
Great Help	10	15	6	8	12	21	10	12
School Provided	35	38	33	33	38	40	34	12
School Did Not Provide	48	47	48	50	44	45	48	77

*(In Percentages; I = Indian, B = Black, S = Spanish-speaking)

Student Valuation of Supportive Services Provided. Table 24 on the next page summarizes the students' appraisal of ancillary services provided, in terms of their help as a factor in keeping them enrolled.

Remembering that only about half of the districts provided the services listed, the percentages reflecting a "help" valuation at anything near 50% are of special note. In that regard, Indian students, for all services, with the exception of cash loans or grants, exhibited an appreciation that stands out among all categories shown. Peculiarly, for all students, financial aids were considered the least attractive of the forms of assistance offered. This is surprising, in view of the fact that in educational opportunity programs, designed in community colleges and universities to attract more minority students, students account the indispensable element to be financial assistance. The other major element in EOP programs is tutorial service, which also did not receive

Table 24. Student Valuation of Supportive Services as a Help in Keeping Them Enrolled*

Services	Low-Drop		High-Drop		Indian		Black		Spanish		Total	
	Help	No Help	Help	No Help	Help	No Help	Help	No Help	Help	No Help	Help	No Help
Bilingual Teachers	37	15	34	17	55	15	38	10	23	18	34	16
Free Tutoring	40	12	47	12	55	5	34	6	35	18	33	12
Free Legal Aid	31	13	47	13	70	5	39	10	41	18	38	13
Free Health Services	37	19	59	11	75	10	44	10	39	12	46	16
Free Breakfast and/or Lunch	38	18	40	13	70	5	44	10	29	29	39	16
Cash Loans and Grants	33	22	42	24	40	30	44	12	29	24	37	22
Aptitude Testing	59	9	45	12	75	5	55	6	53	12	53	10
Training to Take Civil Service Tests	42	8	46	9	50	10	44	6	47	-	40	8
Part-Time Jobs on Campus	44	17	51	19	70	15	50	10	65	12	47	18
Part-Time Jobs in Community	58	11	45	13	65	5	54	7	47	12	52	12
Free Tools or Equipment	63	4	44	3	75	-	52	3	65	-	55	3

*(In Percentages)

extraordinary consideration in this study. The four forms of assistance which do stand out in this analysis are aptitude testing, part-time employment and tools and equipment supplied free by the school. Apparently, students are diffident about accepting direct aid (viz., all services listed as free, except tools) and prefer an oblique form of support. This seems to be especially true of Spanish-speaking students. At the same time, generally speaking, students from low-drop classes did not see these services as being as helpful as students from high-drop classes.

Summary. The provision of a wealth of supportive services was calculated to represent an initiative to which most schools with high minority populations in their student bodies would readily subscribe. The basic thrust of compensatory education projects and educational opportunity programs (EOP) is a rich framework of ancillary services to reinforce curriculum content and instruction.

Only about half of the schools provided what was felt to be a representative array of human development support services. Of those services which were provided, part-time jobs, aptitude testing and free shop tools were most valued by students. Of the three principal minority group classifications, American Indians seemed to relate most positively to all types of services; Black students likewise seemed generally to regard all services as valuable. Spanish-speaking students seemed deeply divided between types of assistance. Free, direct subsidies (free breakfast or lunch, free legal aid, cash loans, etc.) were not nearly valued so highly as indirect support (part-time jobs, preparation for taking tests, loan of tools to work with, etc.).

E. Organization

A number of influences sourced in the fundamental organizational format of school sites are believed to affect the success of instructional program. Particularly does this stand true where minority students constitute the major portion of the enrollment. The general predisposition of minorities to open exchanges with each other, the sense of community which identifies their group behavior and the high emotionality component of their learning styles would predicate the need for a wide spectrum of differential experiences; project-oriented undertakings; and a blurring of boundaries between school and community, between day and evening (or week-end) operations and between one kind of program and others within the same jurisdiction.

Teachers and students were asked to react to a number of aspects of the school's endeavor which relate to an open or closed organizational structure.

Teachers' indications of the presence of these elements were recorded in their response to several questions. The percentages of their responses are tabulated below:

QUESTION: Are the facilities of the school regularly open evenings?

("YES" ANSWERS)

Total	High Drop	Low Drop	Strong Union	Weak Union	Ethnic Group			Type of Course				
					IND	BLK	SPA	1	2	3	4	5
68	63	72	78	54	71	68	63	81	50	67	80	50
QUESTION: Do students completing vocational courses receive waiver of time on apprenticeship? ("YES" ANSWERS)												
23	27	19	22	23	43	21	13	33	38	11	20	7
QUESTION: Can students enroll in your courses at any time during the school year? ("YES" ANSWERS)												
52	60	44	50	54	86	53	13	62	25	56	50	50
QUESTION: Rate the opportunities students on your campus have to work while attending school. ("EXCELLENT")												
36	37	34	31	42	14	36	50	33	50	33	50	21

(Cont)

QUESTION: Rate the opportunities students on your campus have to work while attending school. (Cont)

("GOOD")

Total	High Drop	Low Drop	Strong Union	Weak Union	Ethnic Group IND	Ethnic Group BLK	Ethnic Group SPA	Type of Course 1	Type of Course 2	Type of Course 3	Type of Course 4	Type of Course 5
48	50	50	47	47	72	47	38		38	67	20	71
("FAIR")												
15	13	13	20	20	14	15	13	19	13	-	30	7
("POOR")												
2	-	-	3	3	-	2	-	5	-	-	-	-
QUESTION: Are facilities regularly open week-ends? ("YES" ANSWERS)												
16	13	19	19	12	-	19	12	24	-	11	30	7
QUESTION: Is the school organized into sub-schools, mini-schools, or divisions, each separately administered?												
16	17	16	17	15	29	13	25	14	25	33	20	-

No significant patterns appear to emerge from these analyses. The figures for each of the classifications generally approximate the total response for all groups. The surprises are in the extent to which most schools (most were high schools) are open evenings (a similar check showed only 16% of the schools are open on weekends) and the optimism displayed by teachers about opportunities for student employment -- at a time, it must be recalled, the nation was at the nadir of the present economic recession. In connection with the use of evening hours, four other items on the questionnaires are of some relevance. Only 11% of the teachers taught at schools which did not have other special programs funded by the government. But fewer than half (45%) were in districts which used VEA funds to assist minorities. One of the uses of evening hours observed during our site visits was provision of additional vocational courses whereby students could take more than one voc-ed major. The extent to which this expedient operated is indicated in the students' reactions to such an opportunity:

(In Percentages)

Reaction	Total	High Drop	Low Drop	Strong Union	Weak Union	Ethnic Group		
						IND	BLK	SPA
No Help	10	12	9	13	7	10	7	12
Some Help	20	18	21	17	24	25	16	41
Great Help	25	20	28	20	32	40	25	12
School Did Not Provide	43	48	39	48	36	35	44	65

Obviously, students accounted the availability of these additional training options to be helpful. Again, it is of more than passing notice that students in strong union towns, even though they had more of such opportunities available in their localities, did not feel the additional training choices were of as much help as their counterparts in weak union regions. The same tendency appears in a summary on the following page of student responses to credit for school training given by unions and employers after employment.

In terms of extension of the school into the community, 41% of the programs reported their students worked on community projects as part of their school experience and almost 80% of the students indicated they had a wide choice of vocational subjects in which to enroll. About 28% said students had additional vocational education programs in the immediate vicinity, skills centers, on-the-job

(In Percentages)

Reaction	Total	High Drop	Low Drop	Strong Union	Weak Union	Types of Classes 1	2	3	4	5
School Provided This	54	48	56	53	55	57	62	35	33	60
No Help	5	8	3	8	2	7	10	3	11	-
Some Help	14	12	16	16	12	5	18	10	-	27
Great Help	34	25	40	28	42	39	33	24	22	37

training, ROP's, ROC's, technical institutes, manpower training, etc., in which they could also enroll.

Summary. An encouraging majority of the schools under study reported great flexibility in school hours, a wide variety of vocational majors, open enrollment and campus and community employment opportunities for students. Sixteen percent reported decentralized administration in the form of mini-schools, pods or sub-schools, each under separate administration within the main jurisdiction.

Despite variations in organizational format and a number of flexible options in curriculum, enrollment, arrangements with the community and with employers and labor, no major differences were observed in the effects on students across the stratifications.

F. Participation

The involvement of parents and community representatives at decision-making levels of the schools' operation is an historical tradition in American education that has been respected more in the breach than in fulfillment. The participation of these grass-roots community groups never amounted to much until the democratic principles it exemplifies experienced a tremendous resurgence through the poverty program, Model Cities and Head Start. We take it now as almost axiomatic in Federal funding of school programs that community persons need to participate, and some programs statutorily require it.

Does it work? It was not the concern of this study to determine the answer to that question, but we did feel it was germane to sense the effects of such participation on students. A number of items which reflect specific intervention in the school process of parents, students and community representatives were presented to teachers and students for their reaction.

Parents. The following table summarizes the indications by teachers of the frequency with which parents were included on various policy committees of the school district.

Table 25. Parent Participation on School District Committees*

Committees	Total	High Drop	Low Drop	Strong Union	Weak Union	Ethnic Group		
						IND	BLK	SPA
Evaluation	21	22	20	19	23	14	19	38
Guidance	8	13	7	8	12	29	6	13
Planning	26	28	23	28	23	43	21	38
Administration	11	10	13	17	4	-	-	-
Budget	10	10	10	14	4	14	11	25
Building and Facilities	10	16	3	14	4	-	9	13
Curriculum	15	16	4	20	8	14	11	13
None of These	27	34	20	33	19	14	32	13

*(In Percentages)

Students. The general impression is that far fewer than one in four districts, except for planning purposes, use parents as colleagues in the decision-making processes of the school. The inclusion of students on these committees is even less. Table 26 on the following page summarizes student participation.

Labor/Management. Other voices in the community at large did not fare much better. The totals for labor-management representatives' participating on school committees are summarized in Table 27.

The reactions of students to participation of community persons on school committees was a reflection of the rather impoverished committees they saw. The students concurred that only 35% of them observed "lots of community people on committees helping to make decisions." Three out of four of them saw this participation as

Table 26. Student Participation on School District Committees*

Committees	Total	High Drop	Low Drop	Strong Union	Weak Union	Ethnic Group		
						IND	BLK	SPA
Evaluation	19	19	20	17	23	43	13	38
Guidance	10	13	7	8	12	43	6	-
Planning	19	19	20	14	27	57	13	25
Administration	3	7	-	6	-	-	4	-
Budget	-	-	-	-	-	-	-	-
Buildings and Facilities	3	6	-	6	-	-	4	-
Curriculum	8	13	3	14	-	-	11	-
None of These	45	53	37	47	42	-	53	38

*(In Percentages)

Table 27. Labor/Management Participation on School District Committees*

Committees	Total	High Drop	Low Drop	Strong Union	Weak Union	Ethnic Group		
						IND	BLK	SPA
Evaluation	21	25	17	22	19	29	19	25
Guidance	13	22	3	17	8	-	15	13
Planning	26	19	33	33	15	14	23	50
Administration	16	9	23	19	12	29	15	13
Budget	7	6	7	11	-	-	9	-
Building and Facilities	11	6	17	11	12	-	11	25
Curriculum	21	16	27	25	15	-	19	50
None of These	18	22	13	17	19	14	21	-

*(In Percentages)

being of "no help." Only Indian students -- 55% of them -- saw the participation as really helpful, a rather expected eventuality, since the Indian students relate strongly to family, community and clan relationships.

As to their own participation in school decisions, students presumably appreciate it. Even though, as we saw previously, they did not enjoy widespread representation on district committees, an average of nearly 50% said it was, or would be, helpful in keeping them enrolled in school.

Parent Employment at School. An important adjunct of parent and community participation in school affairs is the provision, through these contacts, of greater numbers of positive role models and "concerned others" for students. Especially in the case of minority youth, who traditionally have not experienced large numbers of their own racial or cultural backgrounds in professional or even classified positions on the staff, to say nothing of supervisory or administrative classifications. We therefore asked to what extent the schools we were studying had hired parents of the youngsters enrolled for paraprofessional and other positions at the school. Table 28 gives a summary of such hiring.

Table 28. Employment of Parents at the Schools*

Position	Total	High Drop	Low Drop	Strong Union	Weak Union	Ethnic Group		
						IND	BLK	SPA
No Answer	66	53	78	61	73	71	68	50
Teacher Assistants	23	23	22	33	8	14	21	38
Tutors	16	20	13	22	8	14	13	38
Monitors	19	27	13	28	8	14	19	25
Teacher Aides	29	43	16	33	23	29	26	50
Bilingual Specialists	10	10	9	11	8	14	9	13
Library Assistants	23	33	13	28	15	14	23	25

*(In Percentages)

It is clear from the preponderance of "no answers" that such employment has not in fact reached serious proportions. Yet the totals are encouraging. One expects spirited involvement of parents and community at the elementary level; high school students are prone to resent, or be embarrassed by, parental presence on school turf. Indeed, this is probably a misrepresentation, especially as, innately, the minority youngster devoutly wishes to maintain family ties. In any case, students' reactions were also heartening: they accounted, by better than 40% across all groups that they found the presence of parents in school jobs helpful. Note particularly the Indian and Spanish-speaking totals in Table 29:

Table 29. Student Reaction to Minority Persons Employed on Campus*

Reaction	Total	High Drop	Low Drop	Strong Union	Weak Union	Ethnic Group		
						IND	BLK	SPA
No Help	12	8	14	13	10	-	8	12
Some Help	23	18	28	24	23	30	22	18
Great Help	16	19	14	16	17	30	18	-

*(In Percentages)

Summary. It seems evident that widespread, meaningful involvement of parents and other community representatives in the decision-making processes of school sites or school districts has still a long way to go. Districts are exhibiting a tendency toward greater development of this resource, and certainly as it affects the welfare of students, it must be considered a good thing. One is inclined to think of the achievement of the schools we observed in this regard as modest, but, truth to tell, we have no reliable yardstick by which to measure their effort.

At the very least, the data do not particularly differentiate among groups as we have aggregated them. Indians stand out as using parents and community to a greater degree than other groups and liking it more than other groups. Ironically, Spanish-speaking students, whose affinity for close family ties is everywhere extolled, observed some of the lowest levels of participation and saw it as of far less use as a support for remaining in school than any other group. Without question, only two types of committees got substantial parent, community or student participation -- planning and evaluation bodies. One wonders whether this is the result of legal requirements in such Federally funded projects as E.S.E.A., E.S.A.A., Head Start, etc., or a genuine attempt on the part of schools to involve interested others outside the professional educational establishment.

VI. SITE VISITATIONS

Task 12 in the statement of work was to visit a selected sample of sites which were representative of high and low drop-out classes in the study. The object of the visits was to gain first-hand impressions of the different school environments and classes, to the end that information provided by the instrument survey would be extended, enriched and validated.

Twenty sites were selected. The cities where they are located are noted on page 57. Besides being representative of high and low drop-out classes, they also constitute a cross-section of sites by geographical location, by predominant ethnic group and by types of programs, with the exception of community colleges. Two of the programs were made up almost exclusively of Indian student enrollments; four had substantial Spanish-speaking populations; and the remainder were either exclusively or predominantly subscribed to by Black students. As mentioned earlier, the four metropolitan areas which might have had classes with predominantly Asian-Oriental enrollments chose not to participate in the study, and the search for other locations to fill this specification was not successful.

For seventeen of the sites, a principal of the contracting firm made the visit; in the case of the three others, a consultant -- Dr. Harold E. Dent, former Director of Guidance and Counseling for the Berkeley Unified School District and presently Director of Education and Training, Westside Community Mental Health Center, San Francisco -- made the contact. In each case, as coordinator, supervisor or assistant superintendent in charge of vocational education was interviewed, and each of the classes for which a Course Profile Form had been submitted was visited, and the teachers interviewed. Visits were for the better portions of one or two days and opportunities were provided for lunches and discussions with staff, students and other personnel at the campuses. Approximately sixty individual classes were visited.

No formal interview schedules were used at the sites, but a Site Visitation Check-List was provided to staff visiting sites, basically as an outline to guide and check impressions. After site visits, the staff exchanged at length the observations made. A summary discussion of relevant information gleaned from the twenty site visits follows.

General Impressions. If the recent resurgence of interest in vocational education has made a significant impact on local programs, it would be difficult to read the evidence in the physical facilities which we saw in our site visits. Most programs were housed in old buildings and most equipment, especially in technical and industrial classes, was hardly of recent vintage. The bulk of the high school programs were ensconced in these aged structures, near the center of the city, in either seasoned structures that were what may have been once the vocational school of the district; or in the town's showcase secondary school decades ago; or in other moribund buildings leased or purchased and remodeled by the district. Newer programs -- skills centers or regional occupational centers -- were usually some distance outside town, with at least some components of the building complex reasonably recently built. Except in proprietary trade classes (Auto, Machine Shop, Welding, etc.), most of the equipment was adequate to very good, and the spaces were clean and well maintained.

Comprehensive high schools had the best and worst of the facilities. Several of the newer high school were excellently outfitted, but where inner city desuetude had overtaken the installation, even the academic classes did not look inviting. Regional programs, technical institutes and special career centers looked to us to be where vocational training capital investment should be henceforth made. More comprehensive and varied use in these facilities -- with adults, college students and manpower program clientele -- appears better able to justify large expenditures.

Almost all campuses had either uniformed police, security guards or identifiable security liaison people to protect student welfare. And campuses for the most part seemed busy and crowded. The practice of busing high school students to the vocational classes either morning or afternoon, and returning them on a contrary schedule to their home schools was a practice observed in a number of vocational and/or technical centers.

And there were some undeniably exciting programs, which, unhampered by poor facilities or location, seemed to be developing innovative strategies for meeting the needs of minority youth. That last concern was one thing all programs had in common. They seemed to be acutely aware of the need for differential educational experiences for students of minority or disadvantaged cultures.

Staff. As the analysis of teachers' ethnic affiliations showed, only twelve of sixty-two responding instructors were from minority groups, against 82% of the students. That was just about the representation we encountered in our visits. The most striking impression of all was the absence of teachers whose racial group identification matched that of most of the students they were teaching. In the total congregation of faculty on campus, some schools displayed the evidence of a vigorous affirmative action program: there were appreciable numbers of minority staff, but consistently in the vocational programs, the ratio seemed badly out of balance. Moreover, the weight of the disproportion unquestionably tended toward older white instructors.

The most vibrant configuration, for vocational programs as well as for total school environments, appeared to be a genuinely integrated one -- a robust mixture of young and old, male and female and minority/white personnel. In each case where we observed a completely monolithic, staff ethnicity -- all Black or all White in a minority student milieu -- and we saw at least four instances of this -- the program noticeably lacked vitality from a number of standpoints -- the absence of innovative new courses; the traditional mode of scheduling and instruction; the impoverished enrollments; and the uninviting imagery of tired and unkempt classroom spaces.

It is of course beyond documentation in this study, but the density of the racial/ethnic mix of any staff teaching mostly minority students, may have a critical, productive break-point and should be further investigated.

Another persistent impression was that staff needs to reflect a mixture of indigenous and non-native professional leadership. Where the staff was wholly "home-grown," so to speak, there also appeared to us to be an attenuation of the vitality of the program. The more vigorous and forward-looking programs seemed headed by a good combination of hometown talent and imported expertise in the persons of experienced voc-ed coordinators and supervisors who were either from other sections of the country or received their professional credentials there. This cross-fertilization also was strongest when it again was a mix of old and young, male and female, minority and white constituents.

Community Linkages. Without question, the impressive programs made use of community facilities and resources -- hospitals, businesses, child care centers, recreation facilities and hotels, construction projects, as well as doctors, nurses and other professional experts.

Moreover, while it could not be reflected in the documentation, the work-experience programs and the off-campus curricula seemed to impart a more enthusiastic tenor to training efforts than programs wholly based at single traditional school environments.

Union Participation. It was difficult to resist the impression that the programs undergoing most change -- those that were breaking into new modes of presentation, getting involved in community projects, incorporating or operating as student businesses, dropping unpopular classes and instituting path-breaking union crafts preparations -- were programs in the Southeast, the Southwest, the corn belt and isolated areas where trade union strength was weakest. This gave rise to the suggestion to incorporate a stratification for "weak" union and "strong" union strength in the approach to analysis of collected information. As was seen in an earlier section, the tabulation by such a division did not yield any pronounced, clear judgments, though the drift of the data did slightly incline toward a ratification of our supposition. Obviously, the data were not numerous enough nor criteria precise enough to warrant arbitrary conclusions. Nevertheless, the point needs to be made in the perspective in which it was seen. We do not mean to imply that unions were not involved in school programs in sections of the country which had low percentages of union membership in the surrounding area's work force. They seemed far more involved than they were in "strong" union localities -- but in a different way. The typical union involvement with a school's voc-ed program is through a joint apprenticeship or trade advisory committee. Most sites seemed to have those. But the courses which marked the exemplary programs, if they may be called that, were those where union support eventuated in initiatives which unions typically have not been known to foster or encourage through such committee structures: nursing and surgical assistants' programs for 11th and 12th graders; home construction as a proprietary business venture by high schoolers and young adults; printing and graphic arts on a commercial profit basis; construction trades which included sheet metal, masonry, electrical, plumbing and other union crafts not ordinarily seen in the framework of on-the-job training, in the high school or for minority candidates. The key, as told us by the leadership who initiated the programs, was early involvement of, and promotion by, union leadership. The residual impression was that union participation was critical in vouchsafing the successful initiation of these programs, but the notion persists that it was easier to achieve such cooperation in these areas because the unions' attention was free enough to focus on developing young potentials among minorities for their continuing membership.

Innovation. A glance at the numbers of programs in each of the five categories used in the study immediately suggests (even while this was not a deliberate canvass of innovative programs), that "there is not much that is new" in vocational education. There was indeed a disappointing paucity of new careers and preprofessional courses. The courses in computer sciences; banking and finance; cooperative (work-study) distributive education; culinary arts and catering; hotel (front-office) management; surgical assistants; pre-med cooperative study; and the high school courses in cosmetology, vocational nursing and day care center supervision were the high spots -- and the limits -- of new, inventive curricular enterprises. The fact that these were the programs in which minority students seemed to enroll heavily and pursue diligently (we had no check on their success, except in this indirect way), implied that this was a promising direction for future development. Interestingly, the programs were asked to indicate if their districts had, within the past five years, discontinued any vocational programs because they were not meeting the needs of minorities. By a ratio of 8:1, the reporting districts had not discontinued any courses. Those which had, had phased out only "one or two."

Promotion. The program which advertised itself to the community strongly, broadly and persistently was rare. That statement is tantamount to a synopsis. It would be naive to say that advertising begets success; and dangerous to suggest that one should advertise a program that does not "deliver" to students. Yet we saw some excellent programs -- good placement, great access for dedicated young minority students -- destined to languish because few people knew about them.

Career Education. Fully 80% of the reporting schools indicated the existence of a career education program in their schools or in feeder junior high schools for at least 1-2 years. A number had had career education programs in the district for as long as six years. In at least some modicum of greater releif, the programs which stood out as having exceptional vitality were those which had had a career education program in feeder schools for some little time. Yet it would be a mistake to say that the career education influence had transformed any vocational classes. The "lattice" concept, or "family of occupations" cluster which so characterizes the philosophy, at least, of career education, was not much in evidence. "Transportation Trades" was still Auto Mechanics and Body and Fender; nowhere did we see jet or wankel engines, diesel, motorcycle repair or an auto shop that looked nearly so varied, clean and inviting as the service department of the local new car dealer. The concept of career education seemed to be at work most visibly in on-the-job type training involvements in community construction projects and cooperative industrial and business education programs.

Evaluation. Surprisingly, most programs conduct follow-up studies of their students on an annual basis. Formal evaluations, too, were conducted by many districts once a year. The scarcity of readily available data on minority enrollments and drop-outs, nevertheless, leads one to believe that most of these "evaluations" are undertaken primarily to satisfy state departments of education in connection with reporting on Federally-funded programs. Upon questioning, it developed that most "evaluations" were indeed statistical counts and hardly subject to rigorous analysis by objectives, cost-benefits, program pay-offs, or precise "success" criteria. It appeared to us that the absence of a systematic, formal and scrupulous evaluation of programs was a singular deficiency across most of the sites visited.

University Assistance. In a few graphic instances, programs which seemed to us barely surviving -- very low enrollment, apparent boredom on the part of students -- were in unusually close proximity to a large university complex, either the largest state institution of higher learning or a consortium of six or seven colleges and universities. Yet the articulation with the university in any obvious model of resource delivery -- training of teachers, conduct or dissemination of voc-ed research, workshops, seminars, demonstration projects, internships of teachers -- was practically nonexistent. Certainly we can develop more direct service delivery systems to the schools from university centers. There needs to be some re-thinking of the way in which centers of higher learning or research coordination centers are using their time, personnel and funds. They do not seem to be infusing much red blood into the ongoing vocational education endeavor.

Summary. The site visits, among other benefits, impressed us with the fact that, despite the ambitiousness of the study, there were still numerous other protocols which might have been included in the methodology. Critical levels of racial/ethnic density of faculty and staff "mix;" the modes of union cooperation and intervention; levels and degrees of community involvement in instructional processes; innovation; promotion; and other elements all appeared to possess some relationship with the attraction and retention of minority students in vocational education programs.

VII. MODEL PROGRAMS FOR MINORITY STUDENTS

One hesitates to write specific prescriptions for educational treatments for any group; the dynamic of learning is so incredibly sensitive to such a multitude of factors, seen and unseen. And surely a consistent, clear-cut documentation to underwrite suggested methods and strategies has not really been provided by this study. To a considerable extent, however, we feel confident that the study did discover an unquestionably muscular bridge between the case that previous research in minority and disadvantaged education has made for differential treatments of ethnic groups and what some of the realistic expressions of those treatments in actual experience should be. We covered a great deal of ground in the hope of harvesting pulse-beat indicators of the right directions for moving minority vocational education, and we feel we found a great many. Much additional research assuredly needs to be undertaken, but the initial signposts are here.

The Instructor's Needs. Probably no better way to present a considered estimate of what works with minority groups is to recount the responses which the teachers of the surveyed classes supplied when asked what they would provide in their programs if they had complete say so to change them to increase their effectiveness. Recalling that over 8 out of 10 of the learners in their classes were non-white students, it is more than interesting to note how intimately their reactions dovetail with the elements we have observed in the study as being the expressions of needs of minority students.

The specific question asked was:

QUESTION: If you could change your teaching situation in any way you wished, what are three changes you would make to improve the effectiveness of your instruction?

The responses in order of frequency:

Rank	Response	Frequency
1	Screen in-coming students	11
1	Better facilities	11
2	More audio-visual aids, films, permanent AV center	10
3	Smaller class size	9
4	More teacher aides, paraprofessionals	8
4	More and better equipment and supplies	8
5	More off-site and cooperative work-study experiences	7
6	Shorter courses and units	6
6	More contacts in community to interact with students and for contacts in placement	6
7	Remedial basic skills	5
7	Concentration of programs in a regional center drawing from other local schools	5
8	Better research and evaluation	4
8	More parent involvement	4
9	More inservice training of teachers	2
9	Team-teaching	2
10	Start school at a later hour	1

There were a few other single-frequency responses, but not many. The question was open-ended; no check-list was provided. For 62 teachers in widely scattered locations of the country, the consensus seems to us remarkable.

Types of Programs. The broad outlines of an improved address to vocational education for all students are implicit in the reactions of these teachers. The school simply has to replicate more realistically the environment in which most of business and industry's workers are trained. Few large companies would tolerate an occupational training program for future employees cast in the mold of a typical high school vocational training program. Which probably explains why American high schools have never provided more than 15% of the trained work force in this country.

Granted that a large number of districts are currently in financial crisis, and that obsolete proprietary trade installations could not be replaced except at prohibitive cost, there is still the expedient of regional occupational centers to offset this handicap. And trade courses need not be so comprehensive that they demand a full spectrum of expensive equipment, like electronically automated machine shop milling machines or giant web presses in print shops. But more than anything else, schools have a whole range of program types which they are *not* offering, as witness the heavy emphasis on trade and industrial (T&I) and business classes in the survey. If minorities are to make a quantum leap to parity with whites in the employment statistics, it will be accelerated most by an expansion of training in new and developing sectors where traditional impediments to minority entry have not or may not crystallize -- in new careers and new industries, paraprofessional and pre-professional training. It is in these areas where expenditures for materials, equipment and space are least costly, and where interaction with the community's resources is most easily achieved -- electronics, computer sciences, health services, services to the aged, banking, finance, insurance, real estate and a host of other growing new service industries.

A Minority Model. We feel there are innumerable valid inferences one can make from the results of the inquiry presented herewith, with respect at least to general directions in which one might proceed in developing an optimal learning environment for minority students in vocational education. We have chosen below twenty (20) elements in the school setting for whose implementation we feel there is sufficiently strong documentation in the study to justify recommending serious consideration. Overall, we conclude that a changing attitude prevails within learning styles of minority groups on the order of the following progression:

INDIAN	BLACK	SPANISH	ASIAN	WHITE

One can read the continuum in any direction; there is an ascending order which evolves in its application to certain elements (effective class size, for example, would increase as one moved from left to right), a descending order in others (e.g., need for parental or community involvement decreases from left to right). This is enough to indicate that there is no judgment of better or worse in the paradigm. It flatly only indicates differences. It is necessary to point out that the placement of Spanish-speaking and Black groups is tenuous so far as order goes: we had earlier made the case for a greater propinquity between the Hispanic and Indian cultures. We are here reversing the order, since most of the tables we have presented seemed to tend in this direction.

For reasons previously described, we have been unable to include Asian-Oriental populations in the study. There were not enough of them in the respondent groups. The components of our model, then, are limited to the three remaining ethnic groups: Indian, Black and Spanish-speaking.

Teacher Characteristics

With respect to age, ethnic affiliation, background and personality characteristics of teachers, the study indicated that for at least Black students, Black teachers made some constructive difference between high and low drop-out. Age seemed not to be related -- most teachers were over 40, but the low-drop classes did have a larger percentage of them. No trending appeared in the trade background or out-of-class activities of teachers as related to attrition of enrollment. There was, however, a strong persistent trend in the low-drop category toward teachers who had a good understanding of young people and of other races; who were up-to-date in their subject field; who were always available to talk to students about their problems; and who treated students "like mature adults."

Instruction

Lower class size was the fourth most pressing wish of the instructors seeking change. Since the ratios of students to teachers were only in rare instances above 20-to-1, it is apparent that teachers find even these numbers a handicap. Time of class meetings was of major concern to ethnic groups: Indians seemed least able to tolerate morning hours, Blacks next, and Whites and Spanish-speaking students not very concerned about early meetings.

Fifty-percent of students went off campus for some part of their instruction, and both students and teachers accounted this a desirable component. All ethnic groups wished more visiting experts from industry, as did teachers; students also seemed to desire greater use of media, visual aids and hardware such as models and mock-ups. More paraprofessionals -- teacher assistants, aides -- were desired by Asians and Spanish-speaking students, but not by

Blacks or Indians. The project or team method was used extensively throughout the classes surveyed, most prominently among Black students.

Individualized instruction and shorter instructional units also seemed to be attractive in strong measure, especially to Spanish speaking students, and teachers rated the provision of more such personalized teaching a high priority.

Students generally felt they had adequate facilities, equipment, and supplies. Teachers emphatically did not. In small but consistent deviation, minority students did not feel they had sufficient space, equipment or supplies, the Black students' sentiments the strongest in the three groups.

School Environment

All indicators pointed to the provision of a friendly, liberal atmosphere as being conducive to minority group learning. On issues such as smoking, freedom of speech and movement, liberal dress codes and provision of due process, Indians, were foremost in counting these as helpful, Blacks next, and Spanish-speaking students last.

Indians seemed to get along with school administrators best, but poorest with one another. Indians and Blacks had poorer relations with faculty than Spanish-speaking students. Blacks and Spanish heritage students had poorer relations with police than Indians, but the differences were slight. Non-teaching staff related to Indian and Spanish students excellently, but Black students had some problems in this connection.

Supportive Services

Almost uniformaly, students regarded supportive human development services (free meals, free tools, financial aids, etc.) as helpful, most helpful in the case of Indians, next with Blacks, closely followed by Spanish-speaking students.

Organization

Using the extent of provision of different organizational components as a reflection of its compatibility with the needs of the ethnic groups served, the same progression was noted with respect to students' exposure to these components. Indian, Black and Spanish-speaking students, in that order, had, generally speaking, a diminishing positive attitude toward innovative conditions operating in the organizational format. The school open evenings, receiving credit for training with employers, open enrollment, ability to work while attending school, and ability to take more than one voc-ed major at one time all showed this general tencency.

Participation

In respect to parent and community participation in policy-making at school, labor-management participation in school affairs and parents of students hired as paraprofessional employees of the school district, the inverse order was true: the Spanish-speaking community was more involved than Blacks and Blacks more than Indians. (It needs to be pointed out that of the two predominantly Indian programs which were included, one was exclusively a residential (dormitory) program involving students from all sections of the country. The likelihood of parent participation in this case would be virtually nil).

The Model. Listed below are twenty elements in the school setting which appear on the bases cited above to have merit in considering improvements in the educational climate of vocational education programs for minorities.

A. Teacher Characteristics		
Indian	Black	Hispanic
(1. AGE:)		
Older persons, male	Young persons, mixed gender	Mature males primarily; women in appropriate occupations
(2. RACE/ETHNICITY:)		
Need few Indians	Need substantial numbers of Blacks	Need a considerable number of Spanish-speaking instructors

A. Teacher Characteristics (Cont)

Indian	Black	Hispanic
(3. PERSONALITY:) a. Understands Indian tradition b. Understands young people c. Knowledgeable in subject field d. Available to talk over problems, "friendly" but stern	a. Understands modern, urban, black, young people b. Knowledgeable in subject area c. Personable, "cool", but involved	a. Understands Mexican-American, Hispanic tradition b. Knowledgeable in subject area c. Personable, "intelligent," but approachable

B. Instruction

Indian	Black	Hispanic
(4. TIME OF CLASS:) Later starting times	Later than typical school day	Early
(5. CLASS SIZE:) 7 - 12	12 - 15	15 - 18
(6. OFF-CAMPUS EXPERIENCES:) Unquestionably	Highly desirable	Desirable to some extent

B. Instruction (Cont)		
Indian	Black	Hispanic
(7. USE OF MEDIA, DEMONSTRATIONS, MOCK-UPS, ETC.:) 80% of the time if possible	50% of the time	25% of the time
(8. PARAPROFESSIONALS:) Desirable	Desirable	Critical
(9. LEARNING IN TEAMS:) Not critical	Very Important	Important
(10. SHORTER UNITS OR MODULES:) Not critical	Important	Very Important
(11. INDIVIDUALIZED INSTRUCTION:) Desirable	Important	Very Important
(12. EQUIPMENT AND SUPPLIES:) Important	Critical	Very Important

C. School Environment

Indian	Black	Hispanic
(13. FRIENDLY ATMOSPHERE:)		
Highest Importance	Very Important	Important
(14. ETHNIC MIX:)		
Tolerate separatism well	Need some other ethnicity	Need considerable other ethnicity
(15. DRESS CODE, SMOKING:)		
Conform to own conservative style	Liberal, but structured	Conservative, stuctured
(16. JUSTICE, DEMOCRATIC DUE PROCESS:)		
Very Important	Very Important	Very Important

D. Supportive Services

Indian	Black	Hispanic
(17a. BILINGUAL TEACHERS:)		
Very Helpful	Of Some Help	Helpful

D. Supportive Services (Cont)		
Indian	Black	Hispanic
(17b. TUTORING:) Extremely helpful	Very helpful	Helpful
(17c. FREE LEGAL AID:) Extremely helpful	Helpful	Very helpful
(17d. FREE HEALTH SERVICES:) Critical	Helpful	Helpful
(17e. FREE MEALS:) Critical	Very Helpful	Helpful
(17f. CASH LOANS/ GRANTS:) Of some value	Valuable	Not critical.
(17g. APTITUDE TESTING:) Important	Important	Important

D. Supportive Services (Cont)

Indian	Black	Hispanic
(17h. TRAINING TO TAKE EMPLOYER TESTS:)		
Very Important	Very Important	Very Important
(17i. PART-TIME JOBS:)		
Critical	Very Important	Very Important
(17j. FREE TOOLS:)		
Indispensable	Important	Very Important

E. Organization

Indian	Black	Hispanic
(18. INNOVATIVE ARRANGEMENTS:)*		
(*double-majors, credit for training with future employers, open enrollment, work-study programs, school open evenings and weekends)		
Very Desirable	Very Desirable	Very Desirable

F. Participation

Indian	Black	Hispanic
(19a. PARENT AND COMMUNITY PARTICIPATION ON SCHOOL COMMITTEES:) Critical	Important	Very Important
(19b. STUDENT PARTICIPATION ON SCHOOL COMMITTEES:) Extremely Desirable	Desirable	Very Desirable
(20. HIRING OF PARENTS AS PARAPROFESSIONALS:) Great Help	Some Help	Not Critical

Beyond these general injunctions, one must add that the preparatory ambience and reinforcement provided by career education programs at lower grade levels seems to be a powerful support factor. Remember that except for the last decade or so, minority students have not seen very many people in many primary occupations who were of the same ethnic identification as they were, let alone understood what those occupations were about or what preparation they entailed. The exemplar of one exciting program on an Indian reservation which we visited -- where career education was an integral part of elementary and junior high school education -- was a profound insight. The responsibility to orient a whole generation of children to a world of work which might or might not be only symbolic, and then to provide, in the face of historic, ingrained institutional barriers, a viable, successful program, culminating in real jobs at the other end of the process -- high school -- is an enterprise of sobering proportions.

VIII. CONCLUSIONS AND RECOMMENDATIONS

The contract for whose activities this report is the comprehensive description was an ambitious attempt to identify factors associated with successful vocational education programs for minority students. It was predicated on a body of research which suggested critical differences in learning styles between and among different ethnic and racial groups, differences which were bound to manifest themselves as variable needs and requirements in the total learning environment. It was also based on the assumption that schools maintained records and statistics which provided ready identification of students by ethnic and racial characteristics. Despite some considerable absence of the latter condition across large, urban school districts, enough data were collected to give appreciable, if not imposing, evidence to support the basic premises upon which the study was based.

In approaching the responsibility to summarize conclusions and make recommendations from the study, the contractor is impelled to recount the implications generated in two directions: (1) for practitioners interested in the theoretical and practical assumptions which motivated the research and the findings rleated thereto; and (2) for the agency which funded the effort and must of necessity be concerned not only with the findings, but also with the contingencies encountered as being an integral part of a larger and more inclusive research enterprise.

Conclusions

Overview. In the face of a number of conditions which surfaced during the progress of the study -- and particularly its later stages -- it is in many ways surprising that we elicited as much cooperation as we did. There were four structural inhibitors which delayed, complicated and/or impeded the intentions and conduct of the research:

1. The passage of the Educational Rights and Privacy Act of 1974 (P.L. 93-380), which took effect mid-way through the study (November 19, 1974), and which implied a proscription on release of student names and addresses and other information necessary for successful completion of the survey. The legislation caused immediately a number of districts to withdraw their offer to cooperate, and prevented others later from following through on their commitment to participate.

2. The inability of many school record systems to identify enrollments, placements, transfers and drop-outs by racial/ethnic categories. Presumably official reports by districts require no periodic summaries by these classifications.

3. The multi-level bureaucratic hierarchy, especially in large districts, which needs to be negotiated before one can contact teachers and students at the site level. In many instances, requests for participation must be channeled to the superintendent, a research department, a research committee, the Board, the principal and perhaps several other persons before approval can be obtained.

4. The restrictions on staff time, as well as the absence of a precise research or data collection responsibility at the school sites. In a number of instances, schools elected to participate, but never assigned the responsibility to follow through to any particular person, or if they did, assigned it to someone already so burdened with other duties that deadlines could not be met, or else data was provided in a form which was not usable.

To facilitate future research efforts and to attenuate the restrictive influences of the conditions outlined above, the following recommendations are made:

1. Issue immediately some precise directives to guide school districts in determining the actual information whose dissemination is prohibited by P.L. 93-380. The interpretation made by some school districts who felt release of dropped students' names and addresses was not in violation of the Act was that only evaluative information was restricted: test scores, disciplinary referrals, grades, etc. Most schools indeed have student directories in the main office where any citizen may have access to most of the very information some districts felt constrained to withhold. Certainly a categorization of information to separate that which is statistical (enrollment, name, address, drop or transfer) from that which is personal is in order.

2. Allow free use of the funding agency's name on all correspondence and instruments directed to school districts. The approach by a private contractor or grantee is often treated as an intervention for which the researcher should pay a fee.

3. Invoke as a special condition of award of VEA-Part C funds to districts the injunction to cooperate with research contractors and grantees studying problems within the Part C priority framework.

4. Develop a cooperative initiative with data-gathering departments of the Bureau of Occupational and Adult Education and other divisions of the Office of Education to modify reporting requirements so that reports on enrollment, placements and drop-outs are classified by racial/ethnic identification.

The rationale and the modus operandi of the applied research, exemplary demonstration and curriculum programs within the Bureau contains a number of structural constraints which impinge upon the effectiveness of the research in the programs. Two major liabilities derive from the method of funding: (1) the unclear guidelines for mounting studies which are national in scope; and (2) the level of funding which inheres in the total program for national efforts.

While the available funds for the total research program is subject to "competition" regulated in general by amounts earmarked for individual states, an indeterminate amount is withheld as discretionary for projects whose range and significance transcend state or local concerns. Such projects perforce demand greater travel expenditures, more numerous personnel, larger samples and in general, longer periods to complete. These considerations are sufficient to warrant a different treatment of such applications.

Further, any program of longer than a year's duration involving travel to different sections of the country will involve expenditures commensurate with a four or five professional person-year level of effort. Few if any of the projects funded thus far have been funded at or near that range.

The Bureau should seriously consider:

1. A separate division of the research program for a limited number of projects national in scope, with different guidelines and regulations.

2. Analyzing the cost-effectiveness of projects thus far funded, to determine whether fewer projects more securely funded would not increase the quality of output over many projects funded at marginal levels.

Conclusions From the Study. While Section VII of the report rather definitively commits itself to a number of suggestions regarding differential models of educational environments for minority students, the impulse to cavil at the absence of solid documentation to authenticate the suggestions is not easily forborne. For that reason, the recommendations which follow are as much a selection of fruitful areas for further research as they are admonitions to practitioners to attempt changes in present learning environments.

Following are the major conclusions which we feel were generated by the study:

1. Vocational education programs, at least in the cities we visited, do not appear to contain evidence of the advances in technology which have lately transpired in related business and industries. Neither in the range of offerings, variety of equipment and materials, redesign of spaces or in innovative techniques for transmitting knowledge and skills do most schools appear to have changed much from the treatments of twenty to twenty-five years ago.

2. New career programs -- in ecology, allied health services, information storage and retrieval, services to aging, preprofessional and paraprofessional training -- do not appear in great numbers to relieve the traditional offerings observed.

3. A definite groundswell of movement for all or part of students' occupational training experience away from the comprehensive school site seems to be taking place.

4. A sizable growth of concentrated vocational skill programs, in regional centers, skill centers, technical institutes and the technical high school appears to be taking place.

5. Little differentiation in methods, techniques and environments, except somewhat in the case of American Indian students, seems to be offered to minority student groups v. predominantly white groups.

6. There is evidence to support the contention that there are substantial differences in cognitive (learning) styles among at least three of the minority groups observed in the study: Indian, Black and Spanish-speaking. These differences are doubtless based on neuroanatomical differences in the way in which sensory impressions are processed as well as on environmental differences, and seem to be affected by how educational materials are presented, by whom, when, and by the general surroundings in which learning takes place.

7. Low drop-out appears to be associated with the understanding the teacher has with young people and minority cultures and with the grasp he/she has of the subject field. It seems also to be associated with the density of ethnic/racial mix in a class or program, class size, a democratic, open, meaningful structure on the school campus, short-units and individualized instruction. Some relationship is suggested with work in teams, working on real-life community projects (on-the-job training) and participation of community (especially labor and management representatives). Most of these assertions are subject to some qualification across the three ethnic groups studied.

Recommendations

The probability of finding ongoing programs with fixed characteristics of the types which project themselves in this study as being worthy of investigation is probably minimal. Yet the absolute test of many of the implications which arose in the study would depend on the ability to hold certain conditions constant which are difficult to arrest, in the dynamic of current school district operations. Public institutions serving primarily or exclusively American Indian students are available to compare with residential programs or with programs with substantial Anglo and Indian enrollments. But few programs with substantial members of Black and/or Spanish-speaking students can be lifted out of an Anglo-dominated jurisdiction for "pure" study. Moreover, even fairly ideal situations would require the involvement and cooperation, if not the intentional revision of, sizeable complements of school staffs and programs. Be that as it may, the following recommendations are made in the belief that the commitment to minority students' welfare is considered important enough -- and some of the findings of this study cogent enough -- that a number of school districts or sites and the Bureau of Occupational and Adult Education would see fit to support formal inquiries in these directions.

1. Ratification of verifiably different learning conditions -- starting times, length of courses, small v. large classes, variable densities of ethnic mix, comparison of verbal v. concrete materials presentation and others -- should be attempted in both primarily integrated and primarily separatist settings.

2. Some attempts to study an elaboration of teacher personalities across the three major ethnic groups in voc-ed programs should be made. The gravitation of minority students to teachers with particular minority backgrounds and particular skills in dealing with young people has hardly been examined in depth.

3. The total process of enrollment, instruction and follow-up appears in most instances not to be viewed as a systematic commitment. Teachers lamented the fact that most students came to their classes without being screened, and they were not particularly impressed by the evaluation which their schools provided for their programs. School officials, perhaps with assistance from the Bureau and university centers, should develop a functional model for quick, systematic, ongoing evaluation of the individual and total vocational education programs.

4. There needs not only to be greater involvement with business and industry in the programs, but some evaluation of such involvement which would lead to the development of the most promising types of business-industry participation. The traditional advisory committee arrangement does not seem any longer to be more than a symbolic or show-case commitment. In this connection, schools might look for ideas to the success of the employer-based career education models which have been operated and tested for some time by the National Institute of Education.

5. Closely related is the matter of contacts with experts from the community; both teachers and students determined that they would appreciate more of such intervention. This does not seem a difficult additive to infuse into present operations.

6. There appear to be certain configurations of supportive services to which minority students relate more than they do to others. Screening, aptitude testing, preparation for test-taking, placement, and other indirect service seemed to be held in greater esteem than direct largesse, as for instance, cash loans and grants, free meals and free health services. Some study should be given to the identification of the optimal constellation of services definitely suited to respective ethnic groups.

7. The need for a meaningful structure within an open, friendly total atmosphere seemed apparent. The wish for freedom of expression and a sense of fairplay would seem to augur a promising potential for a relaxation of some basic blocks in the school's overall structure, as against any permissive "atmosphere" having to do with smoking, male-female relations or dress codes. The need seems to be in the area of wider choices of subjects, alternative patterns of courses, variable scheduling and basic routines of the school. The technical institutes, regional occupational programs and community colleges appear to represent an "adult" model which might feasibly be tried

with our 11th and 12th grade students. An experimental study in this direction might be difficult to mount, but it begs trying.

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APPENDICES

APPENDIX A	Specimens of Letters Inviting Districts to Participate
APPENDIX B	Specimens of Instruments Used in the Study: 1. Course Profile Form 2. Teacher Questionnaire 3. Student Questionnaire - Drop-out 4. Student Questionnaire - Current 5. Site Visitation Check-List

September 16, 1974

APPENDIX A -- INVITATION TO PARTICIPATE

Dear Superintendent:

We are under contract to the Office of Education, Bureau of Occupational and Adult Education (Contract OEC-74-1740) to develop models of vocational education programs to meet better the needs of ethnic minority students.

The main focus of the study are high school vocational education programs in the fifty largest U.S. cities and the factors -- strategies, techniques, approaches -- associated with effective delivery of voc-ed services to minority students. As a preliminary exercise in the study, we wish to identify within the fifty cities a smaller sample of programs to observe more closely. To do this, we will require the cooperation of the districts to provide us with some brief initial data on minority enrollments and course completions in vocational programs for the 1973-74 (or most recently selected available) school year.

Once we have identified the sample districts, we shall be seeking to identify a small number of staff persons (teachers, for the most part) to interview on a site visit or to complete a brief, self-administered questionnaire. Additionally, we will be conducting a follow-up canvass of selected students who discontinued a vocational course of study during the 1973-74 year. Student respondents will be paid an honorarium for completing questionnaires.

Any questionnaires or other survey instruments will, of course, be subject to approval by the Office of Education, the Office of Management and Budget and an Advisory Committee before dissemination.

We do not expect to begin field work or questionnaire mailings before the first of the year, but we do need to identify the sample of programs to be studied as soon after the start of the fall term as possible. The intrusion on the regular routine of any particular school or individual will be minimal, in any event.

We have had a long-standing commitment toward helping teachers to improve their skills in meeting special needs of students, and we feel this study can contribute significantly to the body of knowledge related to this extremely critical problem in inner city schools.

We are asking for your assistance in this important study. Can you confirm your willingness to participate by indicating to us the name of a contact person knowledgeable in matters pertaining to high school vocational education programs in your district? If you should wish further particulars concerning the study or the firm, we should be pleased to provide it.

Thank you for your cooperation.

Sincerely,

Wallace T. Homitz

Wallace T. Homitz,
Project Director

WTH:gg

December 27, 1974

APPENDIX A

INVITATION TO PARTICIPATE

We are conducting a survey of vocational education for U.S. Office of Education, Bureau of Occupational and Adult Education, Washington, D.C. The study seeks to identify characteristics associated with successful voc-ed programs serving minority students -- Black, Asian, Hispanic and American Indian. We have thus far secured an indication of willingness of some thirty-five school districts in the major metropolitan areas of the U.S. to participate in the study. We would like to include a program from your area.

I am attaching a brief synopsis of the methodology of the study; it is detailed enough to give you answers to most of the questions I suspect you may have. In summary, three exercises would be completed if a program (or programs) is included in the final sample from your district: it would be an indication from your office (or other cognizant representative of the voc-ed component) of enrollments in five types of vocational programs (or courses) with some estimate of the completion/drop-out rate for each in the last school year for which figures are available.

The second task, as the synopsis describes, would be the receipt of names of a select number of instructors currently teaching the courses to make contact with them in order to have them complete a self-administered questionnaire. The number of teachers in any given district might be as few as five, and probably no more than that, unless sampling requirements decree a larger number.

Exercise three would be the provision of names and addresses of students who dropped the course during the period for which data was provided. From these, a sample would be drawn and a brief questionnaire mailed to the selected students. Each student would be paid a modest honorarium (2 or 3 dollars) for responding.

All replies are, of course, strictly confidential. Our interest is in aggregate data only; no individual city, school or person will be identified in the study.

The questionnaires for students and teachers have been reviewed by a national advisory committee and the staff of OE -- Bureau of Occupational and Adult Education. They are now at the printer, and I can forward specimens if you should wish to see them.

We expect to be starting the field canvass (for profile information) about January 15th. I enclose a specimen of the profile sheet we will be using in that first exercise; you can see it is fairly simple, though if exact data is not readily available, a person knowledgeable about the voc-ed program will need to make some estimates or calculations to give us a spread of programs known to attract high minority enrollment.

We would very much like to include one or more of your programs in our study. Can you review our request with your staff and let us know your willingness to participate? If you need additional information, please contact us.

Sincerely,

Wallace T. Homitz,
Project Director

WTH:gg
Enclosures: Synopsis
Course Profile Sheet

APPENDIX A -- ENCLOSURE WHICH ACCOMPANIED INVITATION TO PARTICIPATE

SYNOPSIS:

A STUDY OF DESIGN EFFECTIVE APPROACHES, METHODS & TECHNIQUES TO SERVE MINORITY STUDENTS IN VOCATIONAL EDUCATION PROGRAMS

The Bureau of Occupational and Adult Education, Contracts and Grants Management Division, has issued a contract (OEC-0-74-1740) to Homitz, Allen and Associates, of Oakland, Ca., to conduct a study to develop models of vocational education programs for minority students.

The central focus of the study is to identify vocational education program (or course) elements which are associated with "more successful" and "less successful" programs as determined by rates of completion by minority students enrolled in the program for the 1973-74 school year. The study proposes to use data from the school districts serving the fifty largest cities in the U.S., as well as ten community college programs and fifteen exemplary manpower or other vocational education programs.

The basic instruments necessary to achieve the tasks outlined in the contract statement are:

(1) a program (course) profile, by which districts will identify vocational education programs with the highest initial enrollment in 1973-74 by minority students in four categories (Black, Spanish-surname, Oriental/Asian and American Indian) in programs (or courses) of five types (union crafts,

women's technical occupations, new careers, semi-professional vocations and business careers). Additionally, the districts will indicate on the profile the course completion/drop-out rate for each program and a school within their jurisdiction where the course(s) is being offered.

Districts with high general vocational education program enrollments in the four racial/ethnic categories will be identified from records already supplied by the Research Division of the Bureau of Occupational and Adult Education and from other extant sources.

After districts have identified high minority enrollment programs (courses) the contractor will sort the programs by racial/ethnic categories and by "high" and "low" attrition (drop-out) rates. The criteria for division into "low and high" categories will depend on the distribution of drop-out rate scores, but it is presumed that it will be possible to define a band of ± 1/2 around the distribution mean as separating a set of neutral scores representing experiences of "average success." By such means, it should be possible to divide the total number of programs into three equal-size groups. The lowest set (scores at least 1/2 below the mean) will represent "less successful experiences; the uppermost set (scores at least 1/2 above the mean) will represent "more successful" experiences.

(2) teacher questionnaire, by which teachers of the vocational programs (or courses) in the "less successful" and "more successful" strata defined above will describe elements (conditions, methods and techniques) used by them in the conduct

of their programs. These elements will be categorized into six areas: (a) Instructor characteristics; (b) Classroom environment; (c) Supportive (student) services; (d) School environment; (e) Organization and (f) Community/Parent participation.

Responses for the most part are graded (weighted) from high to low, so that individual and/or cumulative analyses of responses from "less successful" and "more successful" experiences can be compared. Areas of greatest incongruity between the two sets will be used to identify approximately thirty-five (35) high school, community college and exemplary vocational training programs which can be visited for more detailed observations.

(3) student drop-out questionnaire, by which a 20% sample of students who discontinued their vocational education programs (courses) in 1973-74 will be canvassed to respond to items which match the six categories of program elements in the teacher questionnaire. The object of the canvass is to determine if there are any differences in elements declared by drop-outs to be associated with their discontinuance of a program (course) and those which are associated with "less successful" and "more successful" program experiences. The difference in the magnitude of the standard error between a sample size of 150 and 1000 in similar follow-up studies using sex, ethnic background and performance (grade point average) as stratification variables is on the order of .008 (p = .5).[1]

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[1] TRACE I and TRACE II, Field Test and Evaluation of a System to Follow Up High School Graduates Using Sampling Techniques, Human Factors Research, Inc. Coleta, Ca., January, 1974.

Construction of Models

After site visitations and analysis of all findings have been completed, recommendations for vocational education programs for each of four minority groups will be drawn. These will be detailed descriptions of vocational education program models which appear to meet the needs of each ethnic group and a detailed description of the most effective methods and strategies for implementing the programs for these youths.

Field Test of Instruments

A preliminary field test of instruments is planned during the month of October. Trial respondents will be a volunteer sample of vocational education teachers and 1973-74 drop-outs from Berkeley and/or Oakland high schools, a neighboring community college and the East Bay Skills Center. Honoraria ($5 per response) will be paid the volunteers for return of completed responses.

APPENDIX B

COURSE PROFILE SHEET

The completion of the attached Course Profile Sheet is intended to provide baseline information on vocational education programs (courses) in your district. Data derived from the Profile Sheet will permit us to identify particular courses for a subsequent second contact with teachers and students. The completion of the form represents the first major exercise in the field phase of our Office of Education supported study of vocational education in urban districts, in which your district has agreed to participate.

Please note that the instructions ask for information concerning the specific minority group. The term "largest" in the instructions ("please list the names of at least one vocational course ... in which the largest number of minority students are enrolled...) is used advisedly. The intention is to identify courses in which the minority enrollment is substantial: twenty-five to thirty-five per cent or more. We expect that whoever fills out the form will know immediately the courses where such large enrollments obtain.

Approved:
USOE - Voc-Ed
Research Division
12-2-74

HOMITZ, ALLEN & ASSOCIATES
6175 Shattuck Avenue
Oakland, California 94609

VOCATIONAL EDUCATION COURSE PROFILE SHEET

PART I -- COURSES

Instructions: For each of the five categories below, please list the name of one vocational course or program in which the largest number of ______________ students (as percentage of total course enrollment) were enrolled at the beginning of the 1973-74 school year.
For each course you list, indicate the name and address of a high school or district-sponsored program in your district where the course is now being offered. For each entry, indicate the percentage of ______________ students who did not complete (dropped) the course for any reason (Use the most recent semester or school year for which data are available).

---

1. UNIONIZED CRAFTS AREA (e.g., Auto Mechanics, Machine Shop, Carpentry, etc.):

Name of Course: ______________

Name of School Where Course is Currently Offered: ______________
____

Address of School Where Course is Presently Offered: ______________
____

Grade Level: ______________

Minority Percentage of Starting Enrollment: ______________
Percentage of Minority Students Who Dropped: ______________

Minority Group Indicated: (If different from that indicated in the instructions in Part I) ______________

2. SERVICE OCCUPATIONS PREVIOUSLY REGARDED AS ATTRACTING PREDOMINANTLY OR EXCLUSIVELY FEMALE ENROLLMENTS: (e.g., Cosmetology, Medical and Dental Assisting, Nursing, Fashion Arts, etc.)

Name of Course: ____________________

Name of School Where Course is Currently Offered: ____________________

Address of School Where Course is Presently Offered: ____________________

Grade Level: ____________

Minority Percentage of Starting Enrollment: ____________
Percentage of Minority Students Who Dropped: ____________

Minority Group Indicated: (If different from that indicated in the instructions in Part I) ____________________

3. NEW CAREERS (e.g., Teacher-Aides, Community Workers, Public Service Aides, etc.):

Name of Course: ____________________

Name of School Where Course is Currently Offered: ____________________

Address of School Where Course is Presently Offered: ____________________

Grade Level: ____________

Minority Percentage of Starting Enrollment: ____________
Percentage of Minority Students Who Dropped: ____________

Minority Group Indicated: (If different from that indicated in the instructions in Part I) ____________________

4. SEMI-PROFESSIONAL TRAINING (e.g., Metallurgy, Engineering, Technology Computer Science, etc.):

Name of Course: ____________________

Name of School Where Course is Currently Offered: ____________________

Address of School Where Course is Presently Offered: ____________________

Grade Level: ____________

Minority Percentage of Starting Enrollment: ____________
Percentage of Minority Students Who Dropped: ____________

Minority Group Indicated: (If different from that indicated in the instructions in Part I) ____________________

5. BUSINESS VOCATIONS (e.g., Secretarial, Sales, Accounting, Banking):

Name of Course: ____________________

Name of School Where Course is Currently Offered: ____________________

Address of School Where Course is Presently Offered: ____________________

Grade Level: ____________________

Minority Percentage of Starting Enrollment: ____________________
Percentage of Minority Students Who Dropped: ____________________

Minority Group Indicated: (If different from that indicated in the instructions in Part I) ____________________

PART 2 -- GENERAL INFORMATION

Instructions: Please complete the following five items with respect to vocational education programs in your district.

1. Has your District discontinued any vocational programs within the last five years because they were not meeting the needs of minority students?

Many Courses ______
Some Few Courses ______
One or Two ______
None ______

2. Does your District operate a career education program in its junior high schools and/or elementary schools? ______

Yes ______
No ______

If yes, how long has it been operating? Years ______

3. What is the range of different vocational education subjects your school provides for students to study?

More than 30 major choices ______
Between 20 and 30 major choices ______
Between 10 and 20 major choices ______
Fewer than 10 major choices ______

4. How often does the District make follow-up studies of its graduates and/or drop-outs?

Oftener than once a year ______
Once each year ______
Less than once a year ______
Almost never ______

5. How often do you formally undertake a complete evaluation of the effectiveness of the District's vocational education program?

Oftener than once a year ______
Once each year ______
Less than once a year ______
Almost never ______

PART 3 -- ADDRESS LISTS

Instructions: Please attaching the following:

1. the names of the teachers who are currently teaching the courses you have listed in Part I.
2. the names and addresses of students who dropped the courses (listed in Part I) in the most recent school year or term.

APPENDIX B -- TEACHER QUESTIONNAIRE

HOMITZ, ALLEN & ASSOCIATES
6175 Shattuck Avenue, Oakland, Ca. 94609

TEACHER QUESTIONNAIRE

Homitz, Allen & Associates is under contract to conduct a study to determine how teachers of vocational education classes in urban school districts may be assisted in better meeting the needs of minority students enrolled. Accordingly, they are seeking to identify factors associated with effective delivery of services to minorities. Your District has agreed to participate in the study and your subject area is one about which we would like to collect information. Would you therefore be kind enough to take a few minutes of your time to respond to the questions in each of the following sections? Most of the responses are graded to allow you to indicate the degree, extent or amount of service used or provided by you. Complete all sections of the questionnaire.

Confidentiality. All individual responses will be held completely confidential. The interest of the study is in aggregate information only. No individual school or instructor will be identified in the study.

Instructions. Complete the section below before proceeding to the main body of the questionnaire.

SECTION I. Program

Course or Program Title ______________________________

Per Cent of current class enrollment who are members of minority groups. ______

Per cent of minority students who normally do not complete the course for any reason. ______

Where is the course offered: (Please check)

(A) At the main school site ______

(B) At a location separate from the main school site ______

If you checked "B" above, specify whether the separate location is a school site, industrial setting, community location, or other special environment: ______________________________

What is the usual rate of job placement of minority students who complete your course (program) satisfactorily?

75 - 100% ____ 50 - 75% ____ 25 - 50% ____ 10 - 25% ____ Less than 10% ____

SECTION II. Instructor

What is your present age? II-1

Under 25 ____ 26 - 30 ____ 31 - 35 ____ 36 - 40 ____ Over 40 ______

What sex are you? II-2

______ Male Female ______

Of what ethnic group are you a member? II-3

______ American Indian
______ Black
______ Oriental

Spanish Speaking ______
White ______
Other (not included above) ______

Have you ever had any race-related human relations training? II-4

______ Yes No ______

Do you work for pay in your subject field in addition to teaching? II-5

Continuously _____ Frequently _____ Only during summer ____ Hardly ever _____
Never _____

Have you taken a course(s) at a nearby college within the past 3 years II-6

______ Yes No ______

If yes, what kind(s) of courses? (Specify) ______________________________

How would you say your own teen-age educational experience and socio-economic background compare to that of your students? II-7

Very similar to most of my students ____
Very similar to about half of my students ____
Very similar to a small percentage of my students ____
Completely different ____

How do you keep up-to-date in your subject field? (Check all that apply) II-8

Magazines, periodicals, newspapers ____
Visits to conventions, fairs, exhibits ____
Serve on business-industry committees ____
Take college courses, workshops, seminars ____
Other (specify) ____________________

What professional activities, related to your job, do you take part in? (Check all that apply) II-9

Active union membership ____
State or local advisory committee ____
Membership in non-educational service or trade group ____
Membership in vocational education association ____
Other (specify) ____________________

Number of years you worked at a job in the field you are teaching before you began teaching? II-10

Less than 3 years ____ 3 - 7 years ____ 7 - 10 years ____ Over 10 years ____

Do you, in your spare time, work with organizations or groups of young people whose ages match those of the students you teach? II-11

____ Once or twice a week
____ Once or twice a month
Once or twice a year ____
Never ____

SECTION III. Classroom

Can students enroll in your course at any time during the school year? III-12

____ Yes
No ____

What part of the day does the class usually meet? III-13

Morning ____ Afternoon ____ Evening ____

How often does the class meet? III-14

3 times a week ____ 4 times a week ____ 5 times a week ____ Other ____

How often does the class go on field trips? III-15

____ Once a week
____ Once a month
Once or twice a year ____
Never, or almost never ____

How often do you bring employers or practicing experts who work in your subject field to discuss and/or consult with students? III-16

Once a month or more ____ Once or twice a year ____ Never/almost never ____

Does the school provide you with paid assistants in your classroom? (Check all that apply) III-17

Teacher interns ____ Teacher aides ____ Other (specify) ____________

To what extent do you use any of the following audio-visual aids? III-18

	Almost Never	Once or Twice a Year	Monthly	Yearly	Almost Daily
Film Strips	____	____	____	____	____
Overhead Projectors	____	____	____	____	____
16 or 35 mm. films	____	____	____	____	____
Slides	____	____	____	____	____
Models or Mock-Ups	____	____	____	____	____
Video Tape	____	____	____	____	____

In your opinion, would your course (or program) serve students' needs better if it were shortened? III-19

____ Yes
No ____

What grading system do you use? III-20

____ Letter grades
____ Pass-Fail
____ Other (specify)

Satisfactory-Unsatisfactory ____
Record of completion only ____

Do you feel the space in your classroom is adequate for you to teach effectively? III-21

Yes, it is well suited to my needs ____
Yes, but I could use more space ____
Not completely useful; needs remodeling ____
No, I need a different type of facility ____

Do you use the team-teaching approach (i.e., do several teachers cooperate to share responsibility for teaching the skills in your course)? III-22

Regularly ____ Often ____ Rarely ____ Never ____

How do you feel about the size of the class enrollment which you teach? III-23

Ideal size ____
Tolerable, but would be better if I had fewer students ____
Far too many students to do an adequate job ____

How do you feel about the amount of equipment you have to teach your course? III-24

Totally sufficient to do a quality job ____
Enough to do a good job, but could use more ____
Only enough to do a minimum job ____
Totally insufficient ____

How do you feel about the amount of supplies you receive to teach your course? III-25

Totally sufficient to do a quality job ____
Enough to do a good job, but could use more ____
Only enough to do a minimum job ____
Totally insufficient ____

Are all of the activities of the course, except field trips, conducted inside a classroom? III-26

Yes ____
No, students complete part of their studies in a work experience program with a local employer ____
No, students complete part of their studies working on projects in the community ____
No, students work on projects or assignments at other locations on the campus ____
Other out-of-class activities than the above (Please specify)____________________

Check the method(s) you use to adapt the course to each individual's needs III-27

Use of learning stations ____
Specially designed sequence of activities for each student ____
Accelerating to more advanced units students who already have proficiency ____
Students work in teams ____
Other (specify) ____________________

Do you feel students who enroll in your course have adequate preparation in basic skills - reading, writing, mathematics? III-28

Yes, it is no handicap ____
Most are well prepared ____
About half are prepared, half are not ____
A few are prepared, but most are not ____
No, it is one of the biggest handicaps to success ____

Is the course you teach part of a sequence of courses the student must complete before he is ready to accept a job in the field? III-29

Yes, part of a sequence of courses ____
No, the student is job-ready when he finishes my course ____

What do you feel is the condition of the equipment you have to do you job? III-30

Up-to-date, totally adequate ______
Mostly up-to-date, could use some new items ______
Mostly out-dated, some handicap ______
Obsolete, totally inadequate ______

If you could change your teaching situation in any way you wished, what are the three major changes you would make to improve the effectiveness of your instruction? III-31

a. ____
b. ____
c. ____

SECTION IV. Supportive Services

Check the services below which your school regularly provides to students. IV-32

Social service referrals (welfare, legal aid, etc.) ______
Psychological diagnosis and referral ______
Scholarships, prizes, cash awards ______
Full-time Placement Counselor ______
Free meal programs ______
Off-site community career guidance centers ______
Health services (in addition to referrals) ______
Free loan of tools in vocational classes ______
Free tutorial services ______
Full-time Vocational Counselor ______
None of these ______

Check the placement services below which your school regularly provides to students IV-33

Locating full and part-time jobs for students ______
Arrangements with employers to provide a continuous pool of applicants ______
Preparation for job interviews ______
Aptitude testing ______
Apprentice testing ______
Preparation for Civil Service or other job tests ______
None of these ______

For bilingual students, which of the following does you school provide as extra assistance? IV-34

Bilingual vocational teachers ______
Bilingual tutors or aides ______
Bilingual textbooks and materials ______
Review sessions where the subject is presented again to students in a second language ______
A separate program in English as a second language ______
None of these ______

What kinds of remedial assistance can students get if they need to improve basic skills -- reading, writing, mathematics? IV-35

	Yes	No
Reading Laboratory	____	____
Writing Laboratory	____	____
Math Laboratory	____	____
Learning resources center	____	____
Tutorial help	____	____
None of these	____	____

Do you have available in your class or nearby, resources where a student can go by himself to review, brush-up, make-up, or teach himself units which you are teaching in class? IV-36

Yes, individually programmed units ______
Yes, cassette-slide units ______
Yes, a learning center or media laboratory ______
Yes, tutorial help ______
None of these ______

SECTION V. School Environment

Please rate the attitude of your school toward the following student behavior V-37

	Very Liberal	Mixed	Intolerant
Freedom to move about or leave campus	______	______	______
Freedom of Speech	______	______	______
Dress	______	______	______
Grooming	______	______	______
Smoking	______	______	______
Male-Female friendships	______	______	______
Student expression in school publications	______	______	______

Is there a procedure for handling student grievances in the school whereby students determine the disposition of the grievance? V-38

______ Yes No ______

Please rate your school with respect to the following: V-39

	Excellent	Good	Fair	Poor
Relations of students with administrators	______	______	______	______
Relations of students with faculty	______	______	______	______
Relations of students with one another	______	______	______	______
Relations of students with police	______	______	______	______
Relations of faculty with one another	______	______	______	______
Relations of faculty with community	______	______	______	______
Relations of non-teaching staff with students and faculty	______	______	______	______

Are facilities of the school regularly open evenings? V-40

______ Yes No ______

Are facilities of the school regulary open weekends? V-41

______ Yes No ______

How would you rate the opportunities your students have to work part-time while attending school? V-42

______ Excellent ______ Good Fair ______ Poor ______

SECTION VI. Organization

Has your District used funds provided by the Vocational Education Acts (VEA) to help with strategies to improve your ability to meet the needs of minority students? VI-43

______ Yes No ______

If "yes", how? ____

In which of the following special programs do your students have an opportunity to enroll for other vocational subjects? (Check all that apply) VI-44

Skills Center ______
Regional Occupational Center ______
Regional Occupational Program ______
Community College Occupational Program ______
Specialized technical institute ______
On-the-job Training ______
Special manpower Programs ______
None of these ______

Is the school where you teach in any sense organized into sub-schools, mini-schools or division, each under a different administrative leadership? VI-45

______ Yes No ______

Are there other special programs funded by government monies operating at your school to assist minority students? VI-46

Many of them ________ Few of them ________ None ______

Do students who complete your course receive a waiver of time on apprenticeship as a result? (Shortened probationary periods, higher beginning pay) VI-47

______ Yes No ______

Please rate the planning activities of your District (or school) with respect to vocational education programs for minority students: VI-48

We have an effective long-range and short-range planning capability in the District ____
We do effective planning, but it is not efficiently coordinated ____
There is quite a bit of planning, but it is not consistently implemented ____
There is very little planning of any kind ____

Does the District (school) conduct promotional efforts designed to attract minority students to vocational offerings? VI-49

____ Yes

No ____

If "yes", what kinds? ____

SECTION VII. Participation

Which of the following committees in your school or District include students as members? VII-50

____ Evaluation
____ Guidance & Counseling
____ Planning
____ None of these

Administration ____
Budget ____
Buildings and facilities ____
Curriculum ____

Other (specify) ____

Which of the following committees in your school or District include labor/management representatives as members? VII-51

____ Evaluation
____ Guidance & Counseling
____ Planning
____ None of these

Administration ____
Budget ____
Buildings and facilities ____
Curriculum ____

Other (specify) ____

Which of the following committees in your school or District include parents as members? VII-52

____ Evaluation
____ Guidance & Counseling
____ Planning
____ None of these

Administration ____
Budget ____
Buildings and facilities ____
Curriculum ____

Other (specify) ____

In which of the following jobs does the school (or District) hire parents of students enrolled? VII-53

____ Teacher Assistants
____ Tutors
____ Monitors

Teacher aides ____
Bilingual specialists ____
Library assistants ____

Other (specify) ____

How would you rate the participation of students, parents and community persons in making decisions concerning the following issues? VII-54

	Very Effective	Moderately Effective	Ineffective	Non-Existent
Hiring & assignment of staff	____	____	____	____
Budget allocations	____	____	____	____
Administrative policy	____	____	____	____
Curriculum change	____	____	____	____
New Programs	____	____	____	____
Planning	____	____	____	____
Board of Education policy	____	____	____	____
Students' rights and responsibilities	____	____	____	____

Code DROP-OUT

APPENDIX B

HOMITZ, ALLEN & ASSOCIATES
6175 Shattuck Avenue
Oakland, California 94609

STUDENT QUESTIONNAIRE

During the 1973-74 school year, you discontinued a course of vocational studies at a school in your city. You are thus in a special position to help school officials determine where certain aspects of high school and college vocational education programs need to be changed or improved.

We are interested in your impressions and evaluations of your vocational training experience. Will you, therefore, take a few minutes of your time to answer the questions in the following brief questionnaire? Answer all questions that apply to you as completely and honestly as you can.

Confidentiality. All individual responses will be strictly confidential. The interest of the evaluators and the contracting agency is in aggregate information only. No individual responses or individual schools will be identified publicly in the study.

Instructions. Please complete the section below before proceeding to the main part of the questionnaire.

SECTION A -- Demographic Data

What sex are you? I-1

Male _____
Female _____

Of what ethnic group are you a member? I-2

American Indian _____
Black _____
Oriental _____
Spanish-Speaking _____
White _____
Other (not included above) __________

What is your present age? I-3

Years _____

What is the title of the vocational course which you discontinued last school year? I-4

SECTION B -- Present Status

What are you doing at the present time? (Check each item that describes your present activity) II-5

_____ In school, full-time
_____ In school, part-time
_____ In Armed Forces
_____ Housewife

Working, full-time _____
Working, part-time _____
Not working, looking for a job _____
Not working, not looking for a job _____

Other (Please specify) ____
____

IF YOU ARE ATTENDING SCHOOL FULL-TIME OR PART-TIME, ANSWER THE FOLLOWING QUESTIONS:

What type of school are you attending? II-6

Technical School (Type) ______________________________
Trade School (Type) ________________________________
Private Business School _____
Adult School or Continuation School _____
Other (Specify) __________________________________

IF YOU ARE WORKING FULL-TIME OR PART-TIME, OR LOOKING FOR A JOB, ANSWER THE FOLLOWING QUESTIONS:

Which of the following is your present job situation? II-7

Unemployed, but looking for a job _____
In an apprenticeship program _____
Receiving on-the-job training _____
In a job I am fully qualified for _____

Which statement best describes your present job or, if unemployed, the job you are looking for? II-8

In a field for which I received specific vocational training _____
In a field related to vocational training _____
In a field unrelated to vocational training _____

Which of the following reasons, if any, caused you to drop your program of vocational studies in high school? II-9

I didn't like the subject _____
I didn't like the Instructor _____
I didn't like the way the total school operated _____
I had to find a job _____
None of these _____
Other (Please specify) ____________________________

Do you plan eventually to resume vocational training? II-10

Yes _____
No _____

SECTION C -- Instruction

Listed below are conditions which may or may not have existed in the school where you were enrolled in a vocational program. Will you make an "x" in the column opposite each item which best tells whether you agree or disagree with the statement as it relates to the vocational course(s) which you took in high school?

		Strongly Disagree	Disagree	Not Sure/ Undecided	Agree	Strongly Agree
II-1	The teacher had a good understanding of the problems of young adults	____	____	____	____	____
II-2	The teacher seemed to know all the latest developments in the subject he was teaching	____	____	____	____	____
II-3	The teacher had a good understanding of the problems of students of other races and cultures.	____	____	____	____	____
II-4	The teacher was always available to talk about our problems, no matter what they were.	____	____	____	____	____
II-5	Most teachers treated us like mature adults	____	____	____	____	____
III-6	The class met at a time that was inconvenient for me	____	____	____	____	____
V-7	The school was a very friendly place where everyone got along	____	____	____	____	____
III-8	We needed to have more experts from industry come to class and discuss the subject with us	____	____	____	____	____
III-9	The Instructor needed more assistants or aides to help him in class	____	____	____	____	____
III-10	We should have had more films, TV, mock-ups and other audio-visual aides	____	____	____	____	____

		Strongly Disagree	Disagree	Not Sure/ Undecided	Agree	Strongly Agree
III-11	The classroom was large, well-lighted, comfortable to work in	___	___	___	___	___
III-12	The school put too much emphasis on grades and performance	___	___	___	___	___
III-13	The equipment was modern, up-to-date and efficient	___	___	___	___	___
III-14	There was enough equipment for all students to complete their assignments	___	___	___	___	___
III-15	There were always enough materials and supplies to complete our assignments	___	___	___	___	___
III-16	Students usually worked in teams in class	___	___	___	___	___
III-17	The course was set up so that everyone got individual help, whether he was a slow or fast learner	___	___	___	___	___
III-18	The class was always held in a shop or classroom on the school campus	___	___	___	___	___
III-19	Students completed part of their training in a work-experience program with a local employer	___	___	___	___	___
III-20	Students worked on community projects as part of their class assignment	___	___	___	___	___
III-21	The class had too many students for the teacher to handle at one time	___	___	___	___	___

		Strongly Disagree	Disagree	Not Sure/ Undecided	Agree	Strongly Agree
III-22	My reading, writing, and arithmetic were good enough to keep up with the rest of the class	___	___	___	___	___
III-23	I didn't understand the English language well enough to keep up with the rest of the class	___	___	___	___	___
III-24	Classes did not need to meet as often as they did	___	___	___	___	___
III-25	We should have had more field trips and visits to business and industrial sites	___	___	___	___	___

SECTION D -- Services

Read each item in the following list of services or conditions, then check whether you had such service or not at your school. If you did not have it at your school, indicate how helpful you think it might have been in keeping you enrolled in the vocational course which you dropped.

		Did the School Provide This?		If "No", How Helpful Would It Have Been in Keeping You Enrolled?		
		Yes	No	No Help	Some Help	Great Help
IV-26	Part-time jobs on campus	___	___	___	___	___
IV-27	Part-time jobs in the community	___	___	___	___	___
IV-28	Special Vocational School Technical Institute, or Skill Center	___	___	___	___	___
IV-29	Training in how to take Civil Service, Apprenticeship, and other tests required to get jobs	___	___	___	___	___
IV-30	Tests to find out my aptitudes and interests	___	___	___	___	___
IV-31	Cash loans and grants for students	___	___	___	___	___
IV-32	Free breakfast and/or lunch	___	___	___	___	___
IV-33	Free health services	___	___	___	___	___

		Did the School Provide This?		If "No", How Helpful Would It Have Been In Keeping You Enrolled?		
		Yes	No	No Help	Some Help	Great Help
IV-34	Free legal aid	____	____	____	____	____
IV-35	Free tutorial help	____	____	____	____	____
IV-36	Bilingual teachers	____	____	____	____	____
IV-37	Bilingual teacher aides and tutors	____	____	____	____	____
IV-38	Free tools or equipment for the course	____	____	____	____	____
V-39	Freedom to smoke on campus	____	____	____	____	____
V-40	Freedom to speak out in school paper	____	____	____	____	____
V-41	Freedom to move about the campus without having to get permission	____	____	____	____	____
V-42	Freedom to wear clothes and hair the way you want	____	____	____	____	____
V-43	Students to have some say in resolving grievances	____	____	____	____	____
VI-44	Wide choice of vocational subjects	____	____	____	____	____
VI-45	Opportunity to take more than one vocational subject at one time	____	____	____	____	____
VI-46	Credit for training by unions and employers after getting a job	____	____	____	____	____
VII-47	Students on committees helping to make policies and decisions	____	____	____	____	____
VII-48	Many minority persons employed at the school	____	____	____	____	____
VII-49	Lots of community people on committees making policies and decisions	____	____	____	____	____
VII-50	Staff and faculty who treated everyone like mature adults	____	____	____	____	____

Code Current
Sample

APPENDIX B

Approved:
USOE - Voc-Ed
Research Division
12-2-74

HOMITZ, ALLEN & ASSOCIATES
6175 Shattuck Avenue
Oakland, California 94609

STUDENT QUESTIONNAIRE

During the 1973-74 school year, you enrolled in a course of vocational studies at a school in your city. You are thus in a special position to help school officials determine where certain aspects of high school and college vocational education programs need to be changed or improved.

We are interested in your impressions and evaluations of your vocational training experience. Will you, therefore, take a few minutes of your time to answer the questions in the following brief questionnaire? Answer all questions that apply to you as completely and honestly as you can.

Confidentiality. All individual responses will be strictly confidential. The interest of the evaluators and the contracting agency is in aggregate information only. No individual responses or individual schools will be identified publicly in the study.

Instructions. Please complete the section below before proceeding to the main part of the questionnaire.

SECTION A -- Demographic Data

What sex are you? I-1

Male ____
Female ____

Of what ethnic group are you a member? I-2

American Indian ____
Black ____
Oriental ____
Spanish-Speaking ____
White ____
Other (not included above) ________

What is your present age? I-3

Years ____

What is the title of the vocational course in which you were enrolled the past year. I-4

SECTION C -- Instruction

Listed below are conditions which may or may not have existed in the school where you were enrolled in a vocational program. Will you make an "x" in the column opposite each item which best tells whether you agree or disagree with the statement as it relates to the vocational course(s) which you took in high school?

		Strongly Disagree	Disagree	Not Sure/ Undecided	Agree	Strongly Agree
II-1	The teacher had a good understanding of the problems of young adults	____	____	____	____	____
II-2	The teacher seemed to know all the latest developments in the subject he was teaching	____	____	____	____	____
II-3	The teacher had a good understanding of the problems of students of other races and cultures.	____	____	____	____	____
II-4	The teacher was always available to talk about our problems, no matter what they were.	____	____	____	____	____
II-5	Most teachers treated us like mature adults	____	____	____	____	____
III-6	The class met at a time that was inconvenient for me	____	____	____	____	____
V-7	The school was a very friendly place where everyone got along	____	____	____	____	____
III-8	We needed to have more experts from industry come to class and discuss the subject with us	____	____	____	____	____
III-9	The Instructor needed more assistants or aides to help him in class	____	____	____	____	____
III-10	We should have had more films, TV, mock-ups and other audio-visual aides	____	____	____	____	____

		Strongly Disagree	Disagree	Not Sure/ Undecided	Agree	Strongly Agree
III-11	The classroom was large, well-lighted, comfortable to work in	___	___	___	___	___
III-12	The school put too much emphasis on grades and performance	___	___	___	___	___
III-13	The equipment was modern, up-to-date and efficient	___	___	___	___	___
III-14	There was enough equipment for all students to complete their assignments	___	___	___	___	___
III-15	There were always enough materials and supplies to complete our assignments	___	___	___	___	___
III-16	Students usually worked in teams in class	___	___	___	___	___
III-17	The course was set up so that everyone got individual help, whether he was a slow or fast learner	___	___	___	___	___
III-18	The class was always held in a shop or classroom on the school campus	___	___	___	___	___
III-19	Students completed part of their training in a work-experience program with a local employer	___	___	___	___	___
III-20	Students worked on community projects as part of their class assignment	___	___	___	___	___
III-21	The class had too many students for the teacher to handle at one time	___	___	___	___	___

		Strongly Disagree	Disagree	Not Sure/ Undecided	Agree	Strongly Agree
III-22	My reading, writing, and arithmetic were good enough to keep up with the rest of the class	___	___	___	___	___
III-23	I didn't understand the English language well enough to keep up with the rest of the class	___	___	___	___	___
III-24	Classes did not need to meet as often as they did	___	___	___	___	___
III-25	We should have had more field trips and visits to business and industrial sites	___	___	___	___	___

SECTION D -- Services

Read each item in the following list of services or conditions, then check whether you had such service or not at your school. If you did have it at your school, indicate how helpful you think it has been in keeping you enrolled in the vocational course which you are taking.

		Did the School Provide This?		If "Yes", How Helpful Has It Been in Keeping You Enrolled in the Course?		
		Yes	No	No Help	Some Help	Great Help
IV-26	Part-time jobs on campus	___	___	___	___	___
IV-27	Part-time jobs in the community	___	___	___	___	___
IV-28	Special Vocational School Technical Institute, or Skill Center	___	___	___	___	___
IV-29	Training in how to take Civil Service, Apprenticeship, and other tests required to get jobs	___	___	___	___	___
IV-30	Tests to find out my aptitudes and interests	___	___	___	___	___
IV-31	Cash loans and grants for students	___	___	___	___	___
IV-32	Free breakfast and/or lunch	___	___	___	___	___
IV-33	Free health services	___	___	___	___	___

		Did the School Provide This?		If "Yes", How Helpful Has It Been in Keeping You Enrolled in the Course?		
		Yes	No	No Help	Some Help	Great Help
IV-34	Free legal aid	___	___	___	___	___
IV-35	Free tutorial help	___	___	___	___	___
IV-36	Bilingual teachers	___	___	___	___	___
IV-37	Bilingual teacher aides and tutors	___	___	___	___	___
IV-38	Free tools or equipment for the course	___	___	___	___	___
V-39	Freedom to smoke on campus	___	___	___	___	___
V-40	Freedom to speak out in school paper	___	___	___	___	___
V-41	Freedom to move about the campus without having to get permission	___	___	___	___	___
V-42	Freedom to wear clothes and hair the way you want	___	___	___	___	___
V-43	Students to have some say in resolving grievances	___	___	___	___	___
VI-44	Wide choice of vocational subjects	___	___	___	___	___
VI-45	Opportunity to take more than one vocational subject at one time	___	___	___	___	___
VI-46	Credit for training by unions and employers after getting a job	___	___	___	___	___
VII-47	Students on committees helping to make policies and decisions	___	___	___	___	___
VII-48	Many minority persons employed at the school	___	___	___	___	___
VII-49	Lots of community people on committees making policies and decisions	___	___	___	___	___
VII-50	Staff and faculty who treated everyone like mature adults	___	___	___	___	___

APPENDIX B

School District__________________________

CHECK-LIST OF IMPRESSIONS FROM SITE VISIT AND CLASSROOM OBSERVATIONS

SCHOOL____

DATE OF VISIT______________________________________

OBSERVER____

LOCAL CONTACT
PERSON____

POSITION____

PHONE NUMBER______________________________________

- -

I. PHYSICAL PLANT:

A. Estimated age of building(s)____________________

B. Number of cars in parking lots:

☐ Crowded ☐ A Goodly Number ☐ Few

C. Do the buildings look as though they are well cared for?

☐ Yes ☐ No ☐ Badly Neglected

I. PHYSICAL PLANT (Cont):

D. Are there security people assigned to the school?

☐ Yes ☐ No

E. Are the shops roomy and well-equipped?

☐ Tired ☐ Average ☐ Clean & Well Equipped

II. STAFF

A. Age of teachers:

☐ Young ☐ Average ☐ Old & Tired

B. Turn-over in past 5 years (additions, replacements)?

☐ Lots ☐ Some ☐ None

C. How integrated is the staff?

☐ Good Balance ☐ Somewhat ☐ Not at All

D. Are they eager to have you visit the class(es)?

☐ Excited ☐ Very Cooperative ☐ Resistant or Bored

II. STAFF (cont):

E. Is there a good mix of men/women; young/old teachers and administrators?

☐ Yes ☐ So-So ☐ No

III. INSTRUCTION

A. How traditional are the offerings?

☐ Old Stuff ☐ So-So ☐ Innovative

B. Are class enrollments large?

☐ Small ☐ Average ☐ Crowded

C. Grade range of students on campus:

____

D. Is there lots of media and innovative equipment and materials around the classroom?

☐ No ☐ So-So ☐ Lots

E. Is there a good mix of minority/white students?

☐ Yes ☐ No

F. Is there a good mix of male/female?

☐ Yes ☐ No

IV. ADMINISTRATION

A. Do they really feel Voc-Ed is exciting, moving ahead?

☐ Hardly ☐ So-So ☐ Definitely

B. Is the contact person really knowledgeable about Voc-Ed innovations?

☐ Yes ☐ No

C. What is the funding situation?

☐ Poor ☐ Enough Money ☐ Lots of Money

D. Are there alternatives available to students?

Extended Day ☐ Evening Enrollment ☐

Junior College/Adult Classes ☐ Other ☐

____

E. How supportive are unions, employers, advisory committees?__________________________________

____

- -

REMARKS: